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FM 7-20

DEPARTMENT OF THE ARMY FIELD MANUAL

**THE
INFANTRY
BATTALIONS**



**HEADQUARTERS, DEPARTMENT OF THE ARMY
DECEMBER 1969**

FIELD MANUAL

No. 7-20

HEADQUARTERS
DEPARTMENT OF THE ARMY
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THE INFANTRY BATTALIONS

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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Purpose

This manual provides doctrinal guidance for the training and tactical employment of the infantry battalions and the essentials of combat support and combat service support operations for these organizations.

1-2. Scope

a. The doctrine contained in this manual generally is applicable to all types of infantry battalions—infantry, airborne infantry, mechanized infantry, airmobile infantry, and light infantry. Portions that pertain to only one type of battalion are specified. For convenience of reference, the term *infantry battalion(s)* or *the battalion*, when used in this manual, includes all five types. For additional guidance concerning the employment of a tank-heavy or infantry-heavy mechanized infantry battalion task force, see appropriate FM 17-series.

b. The doctrinal guidance contained herein covers the organization and inherent capabilities and limitations of the infantry battalion, to include command and operations. The guidance is primarily for the commander and his staff, but it can also be applied by subordinate commanders and leaders of combat, combat support, and combat service support units organic or attached to the battalion or otherwise placed in its support.

c. This manual furnishes worldwide guidance for operations in:

(1) General war, to include a consideration of the employment of, and protection from, nuclear munitions and chemical, biological, and radiological agents; and operations in nuclear, chemical, or biological environments.

(2) Limited war.

(3) Cold war, to include stability operations.

d. Users of this manual are encouraged to

submit recommended changes and comments to improve the publication. Comments should be keyed to the specific page, paragraph, and line of the text in which the change is recommended. Reasons will be provided for each comment to insure understanding and complete evaluation. Comments should be prepared using DA Form 2028 (Recommended Changes to Publications) and forwarded direct to Commanding Officer, United States Army Combat Developments Command Infantry Agency, Fort Benning, Georgia 31905. Originators of proposed changes which would constitute a significant modification of approved Army doctrine may send an information copy, through command channels, to the Commanding General, United States Army Combat Developments Command, Fort Belvoir, Virginia 22060, to facilitate review and followup.

e. This manual is in consonance with the following international agreements:

(1) NATO STANAG/CENTO STANAG/SEATO SEASTAG/(ABCA SOLOG 51) 2041, Operational Road Movement Orders, Tables, and Graphs.

(2) NATO STANAG/CENTO STANAG/SEATO SEASTAG/(ABCA SOLOG 49R) 2082, Relief of Combat Troops.

(3) NATO STANAG/CENTO STANAG/(ABCA SOLOG 108), 2088, Battlefield Illumination.

(4) NATO STANAG/CENTO STANAG 2099, Fire Coordination in the Land/Air Battle.

(5) NATO STANAG/CENTO STANAG/SEATO SEASTAG/(ABCA SOLOG 132) 2112, Radiological Survey.

f. Figures depicting a combat operation scheme of maneuver are graphically correct in this manual, unless noted otherwise, and serve as a ready reference for preparation of plans/orders for that type of operation.

Section II. MISSIONS OF THE INFANTRY BATTALIONS

1-3. Combat Mission

The mission of the infantry battalion is to close with the enemy by means of fire and maneuver in order to destroy or capture him, or to repel his assault by fire, close combat, and counterattack.

1-4. Other Roles

In addition to its primary combat mission, the in-

fantry battalion can be employed in a variety of other operational roles. These include advisory assistance; truce enforcement; peacekeeping missions; related operations to maintain, restore, or establish a climate of order to permit a responsible government to function effectively; and other tasks to include show of force, international police action, legal occupation, protection of personnel and property, civil defense, and riot control.

Section III. CAPABILITIES AND LIMITATIONS

1-5. General

The battalion is the infantry division/separate brigade's basic tactical and maneuver unit, and it can be employed in a variety of combat missions with organic means. Its command structure is designed to accept, when necessary, an augmentation of combat, combat support, or combat service support units or elements.

1-6. Capabilities

a. In accomplishing their basic combat mission, all infantry battalions have the capability to:

(1) Conduct sustained combat operations in any level of conflict and in all types of terrain and climates when properly augmented.

(2) Provide base-of-fire and maneuver elements.

(3) Seize and hold terrain.

(4) Conduct independent or semi-independent operations when appropriately reinforced.

(5) Provide limited antitank defense.

(6) Provide limited defense against air attack.

(7) Provide indirect fire support for organic and attached units.

(8) Participate in joint and combined operations, to include stability operations.

(9) Accept or release organic, attached, or supporting elements.

(10) Exploit the effects of chemical, biological, and nuclear weapons.

(11) Conduct airmobile/airlanded assault operations when provided with sufficient air transportation.

(12) Conduct extensive patrolling.

(13) Conduct riverine operations when provided adequate support.

b. In addition to the capabilities listed in *a* above, the mechanized infantry battalion has the capability to:

(1) Maneuver with a high degree of cross-country mobility.

(2) Provide light armor protection for infantry.

(3) Provide a highly mobile maneuver force.

(4) Act as a mobile counterattack force.

(5) Traverse inland waterways, within limitations, while mounted.

(6) Provide relatively good protection from nuclear, biological, chemical, and conventional fires.

c. In addition to the capabilities listed in *a* the airborne infantry battalion is capable of conducting offensive operations by parachute assault.

d. In addition to the capabilities listed in *a* the airmobile infantry battalion has the inherent capability to conduct airmobile assaults and operations, and habitually moves combat forces and their equipment about the battlefield in aircraft, primarily helicopters, under the control of the ground force commander to engage in ground combat.

1-7. Limitations

a. The infantry, airborne infantry, airmobile infantry, and light infantry battalions have ground mobility limited to walking speed, and limited protection against nuclear, biological, chemical, and conventional fires.

b. The mechanized infantry battalion loses its mechanized capabilities in the initial or assault phase of airmobile and joint airborne operations. Its ground mobility is restricted by jungle, mountain, and other difficult terrain. The capability of mechanized infantry vehicles to cross water obstacles is limited by steep banks or swift water currents. The mechanized battalion's logistical requirements are greater than those of other battalions.

c. The airborne infantry and airmobile infantry battalions are sensitive to adverse weather which

restricts air operations, and they lack organic medium and heavy field artillery support.

Section IV. FUNDAMENTALS OF COMBAT OPERATIONS

1-8. General

The principles of war and fundamentals of combat operations have evolved from knowledge derived from operations and study of success or failure in combat. They are applicable to all types of combat operations, and when properly applied they will assist commanders and staffs in the accomplishment of any mission. A comparison of ground combat during nuclear warfare with combat during nonnuclear warfare is outlined in paragraph 1-11; for a more complete discussion, see FM 100-5.

1-9. Principles of War

The principles of war include *objective, offensive, mass, economy of force, maneuver, unity of command, security, surprise, and simplicity*. Their proper application is essential to the exercise of command and to the successful conduct of military operations. These principles are interrelated and, depending on circumstances, may tend to reinforce one another, or they may conflict. Consequently, the degree of application of any specific principle will vary with the situation; however, each must be considered and appropriately applied during the planning and conduct of all tactical operations. For detailed discussion of the principles of war, see FM 100-5.

1-10. Fundamentals

The effective employment of combat forces in tactical operations is dependent in large measure on the proper application of fundamentals of combat. These fundamentals are general rules which recognize current doctrine, organization, and state-of-the-art of war in the application of the principles of war to combat missions. They assist commanders and staff officers in all stages of planning and executing combat operations.

a. *Employ the Soldier Effectively.* Though combined-arms forces may command overwhelming combat power, success in combat depends ultimately on the courage, intelligence, professional competence, and endurance of the soldier, the decisive factor in battle. Providing him adequate training and support, which will help him maintain his high morale and efficiency, is a definite responsibility of leadership.

b. *Plan Carefully, Execute Aggressively.*

(1) All battalion combat operations require

careful, detailed planning. The commander, by assigning missions, allocating means, and imposing controls, insures that the plans and actions of all subordinate elements are coordinated toward the accomplishment of the mission. The commander keeps his subordinate commanders and staffs informed of his intentions and final objective. With this knowledge, they can direct their efforts toward the common goal when opportunity exists to exploit local success.

(2) Speed in decisionmaking and planning is essential to take maximum advantage of the inherent flexibility of combined-arms forces. Oral, mission-type orders are used frequently. Such orders specify to the subordinate the mission to be performed but do not direct how to do it. Maximum freedom of action contributes to aggressive execution and permits subordinates to react rapidly to changes in the situation.

(3) The speed and aggressiveness with which an operation is executed normally determine the measure of its success. The mission is accomplished in the shortest possible time. To insure aggressive execution, the commander exploits all means of tactical mobility.

c. *Use Environment to Best Advantage.* Commanders use every advantage afforded by terrain, air space, weather, and time to further accomplishment of the mission.

(1) Terrain is an important factor in the application of combat power since it largely controls the effective employment of weapons, provides lines of communication essential to decisive maneuver and support thereof, and provides or blocks avenues of approach which facilitate the application of combat power through mobility and maneuver. All operational plans must provide for maximum exploitation of natural terrain features such as rivers and other water obstacles, passes, defiles, and impassable areas.

(2) The commander increases mobility by taking maximum advantage of air space to maneuver his force. Aircraft, when used in connection with ground operations, permit the rapid movement of forces to a decisive area on the battlefield with minimum regard to terrain barriers and trafficability. The ability to move forces rapidly by air and to land them on or near their objectives increases the chance for tactical surprise and facilitates the massing of combat power.

(3) As in the case of terrain, the commander takes advantage of the climate and weather to best develop and apply his available combat power. The adverse effects of weather and climate on friendly personnel, materiel, visibility, trafficability, control, weapons, and air support must be minimized while taking maximum advantage of these same effects on the enemy.

(4) The commander visualizes his operation in terms of time and space limitations to determine which combination of factors offers the most assurance of success. Time available for planning and preparation is an important consideration in selecting the form of maneuver (para 4-18).

d. Use Combined Arms and Mutually Supporting Forces. Combat power is attained by employing mobile, responsive, combined-arms forces against the enemy. A combination of tanks and infantry with appropriate support normally constitutes the most effective maneuver force. When elements of the combined-arms force are employed separately, the distance of such separation is normally limited so that timely mutual support between elements is possible.

e. Enhance Flexibility.

(1) The interaction of events and conditions on the battlefield makes it necessary for combat units to adapt their action rapidly to the current situation or significant circumstances that may develop. This flexibility is especially important in offensive operations where rapidly changing situations require the commander to modify his plans and react with utmost speed. In the defense, flexibility is reflected in shifting forces and fires to counter the enemy attack as it develops.

(2) Flexibility encompasses the entire spectrum of military activity, to include adapting tactics and resources to special conditions which may exist. Flexibility of organization and resources is retained to react to unexpected changes, and to seize or retain the initiative. Flexibility is enhanced by detailed, imaginative planning and is reflected in the organization for combat and disposition of forces. It is further enhanced through efficient communications, appropriate formations, retention of a reserve, and mobility.

f. Exploit Mobility.

(1) Mobility increases the capability to employ firepower and maneuver and it enhances their effect. Surprise is often achieved through mobility.

(2) Mobility may vary from footmobility, through mechanization, to complete airmobility. Effective use of all available means of mobility permits the rapid concentration and prompt dis-

persal of combat forces, makes the assignment of multiple missions feasible, and permits the rapid repositioning of committed forces. It permits the concentration of converging forces on a single objective.

g. Minimize Vulnerability. Vulnerability is the potential for reduction in combat effectiveness by enemy action. Mobility and offensive action are effective means of reducing vulnerability. Security measures also reduce vulnerability by negating unexpected action by the enemy and in maintaining the integrity of the friendly force.

h. Generate Maximum Combat Power.

(1) Combat power is a combination of the various resources available to a commander and the ability of his command to employ them. It is significant only in relation to the combat power of opposing forces. The development and application of combat power is essential to decisive results. Combat power of opposing forces is not ordinarily directly proportional to their numerical strengths. When hostile forces are determined to be numerically superior, the commander opposing them examines all aspects of the situation to determine how he can develop greater relative combat power. Development of maximum combat power is dependent largely on the initiative of the commander and his ability to properly combine and coordinate available means. The skillful application of unexpected combat power is often an important factor contributing to surprise.

(2) The degree of combat power obtained is directly related to the commander's imaginative planning and leadership and the application of the principles of war. Vigorous execution is required for successful application of combat power.

(3) The availability and proper use of fire support are important factors in the application of combat power. The fire support plan must be integrated with the maneuver plan to insure the availability of adequate combat power and to insure that the fire support is sufficiently responsive to meet the requirements of the maneuver elements.

i. Perform Continual Reconnaissance.

(1) Reconnaissance is a continuing responsibility at all echelons. It provides information of enemy weaknesses and early warning of impending enemy countermeasures. It is directed toward the enemy, weather, terrain, and other environmental aspects of the area of operations.

(2) In the offense, the commander keeps himself informed of the progress of the attack, enemy reaction, and the situation confronting subordinate units in order to maneuver forces effectively employ fires to gain his objective.

(3) In the defense, covering forces and other security forces reconnoiter to locate the enemy and report movement of his forces.

(4) Reconnaissance and security operations complement each other and cannot be readily separated. Ground and air reconnaissance provide a degree of security, and a security force provides information of the enemy and the area of operations as a result of reconnaissance during its normal operations.

j. Provide for Adequate Combat Service Support. Adequate and timely combat service support is essential to the accomplishment of any tactical mission. Detailed logistical planning for supply, medical support, and maintenance is concurrent with tactical planning. During operations, personnel estimates, logistical estimates, and civil-military operations estimates are continual, and plans for supply and resupply are implemented to maintain the fighting capabilities of combat forces.

Section V. NUCLEAR ENVIRONMENT

(NATO STANAG/CENTO STANAG/SEATO SEASTAG 2112; ABCA SOLOG 132)

1-11. General

Both nuclear warfare and nonnuclear warfare are based on the application of combat power in accordance with the principles of war. The major difference between nuclear and nonnuclear warfare arises primarily from the increased combat power provided by nuclear weapons, from a sharply increased vulnerability of troops and installations in the nuclear environment, and from the measures required to counteract this increased vulnerability (to include increased security requirements for nuclear weapons and their associated delivery and support units). General differences are listed below. For a more complete comparison of nuclear and nonnuclear warfare, see FM 100-5.

a. In a nuclear environment, areas of responsibility and interest will be broadened to minimize exposure of forces as a remunerative target. Units will require a reliable communications system for command and control and increased mobility to exploit the increased combat power of nuclear weapons, and to avoid nuclear destruction.

b. Dispersion required in a nuclear environment exposes the dispersed units(s) to defeat in detail. The dispersion between units must be governed by current and planned operations and the level of employment of nuclear weapons. Gaps created by dispersion are kept under surveillance.

c. Mobility in the nuclear environment must be emphasized. A high degree of mobility is required to reduce vulnerability, facilitate control over extended areas of responsibility, provide mutual support, maintain freedom of action, exploit the effects of nuclear fires and reduce exposure to residual radiological effects when crossing contaminated areas.

d. In a nuclear environment, units will continue to fight by fire and maneuver; however, as higher

yield weapons are employed and the effects of extensive employment of nuclear weapons tend to saturate the battlefield, maneuver elements will find it increasingly difficult to maneuver without incurring heavy losses. Success on the battlefield will continue to accrue to the most maneuverable unit capable of exploiting the firepower employed. Deep, decisive objectives will be sought, causing the battle to be waged in depth.

e. Air defense requirements increase under conditions of nuclear warfare because of the inherent threat of a single hostile aircraft armed with a nuclear weapon.

f. Organization for combat is affected by the dispersion of units, mobility of forces, vulnerability of troops and materiel, and tempo of operations in a nuclear environment. Combat units will tend to operate semi-independently under mission-type orders. Combat support and combat service support units will often need to be attached to maneuver units. Though the trend will be toward decentralization, the commander must organize his force in such a manner as to permit control and direction in the course of battle.

g. Heavy casualties in operations where nuclear weapons are employed may often be suffered within a very short period of time. The losses may be to such an extent that a unit's combat effectiveness may be severely impaired or destroyed. Units must be trained and prepared for rapid reorganization and emergency medical treatment of mass casualties. Replacement may be by units as well as by individuals.

h. In a nuclear environment, control of radiation exposure may influence the commander's decisions in the selection of a course of action and the units to be employed in a given operation. Radiation exposure should be controlled to the maximum extent consistent with the mission. For fur-

ther details on categories of exposure and radiation exposure guidance, see FM 3-12.

1-12. Prestrike Warnings

Nuclear prestrike warnings (STRIKWARN) must be provided to all friendly troops who may be affected by the strike. This responsibility rests

with the commander executing the strike. The warning must be initiated no earlier than necessary, for security reasons, and must be coordinated with adjacent or other commands whose safety might be affected. Details and approved format for STRIKWARN messages are contained in FM 101-31-1.

Section VI. NIGHT COMBAT

(NATO STANAG/CENTO STANAG 2088; ABCA SOLOG 108)

1-13. General

Night operations include all military activities (attack, defense, retrograde, movement, combat support, and combat service support) conducted at night. Operations under other conditions of reduced visibility often require the use of night techniques. Night operations are conducted for four fundamental reasons:

a. To maintain or attain the initiative by continuing to fight or to break contact at the most advantageous time and place.

b. To exploit the advantage of darkness to achieve surprise and avoid heavy losses which might be incurred in daylight operations over the same terrain.

c. To compensate for advantages held by an enemy with superior forces or air superiority.

d. To counter or neutralize the enemy's night operating capability.

1-14. Fundamental Considerations

a. Operations during periods of reduced visibility should be considered an integral part of all operations since they offer opportunity for deception and surprise.

b. The degree of success obtained in night-type operations is normally dependent on the training

and condition of troops, adequate prior reconnaissance, simple plans, effective control measures, and an enemy's surveillance capability.

c. During stability operations, the desirability of conducting night operations to achieve surprise and maintain pressure against insurgents must be constantly assessed.

d. Infiltration can be particularly effective in night operations.

e. Night vision and surveillance equipment and battlefield illumination increase the efficiency of units operating at night and facilitate the employment of supporting fires.

f. Principles of daylight operations generally apply to night operations; however, special control measures and techniques and more detailed planning are required at night.

g. When friendly nuclear fires are used at night, adequate warning is required to reduce the effects of dazzle and loss of night vision.

1-15. Reference

a. For a detailed discussion of the conduct of operations during periods of reduced visibility, see FM 31-36 (Test).

b. For detailed information pertaining to battlefield illumination, see FM 20-60.

CHAPTER 2 ORGANIZATION

Section I. INTRODUCTION

2-1. General

a. The organization of forces is the consolidation of the various units of elements available—organic, attached, or supporting—under one commander who directs their efforts toward a common goal.

b. The infantry battalion may be employed in operations involving only the Army, in operations involving two or more of the armed services of the United States (joint operations), in operations involving the armed forces of two or more allied nations (combined operations), or in any combination of the above.

c. The infantry battalion organization includes

a control headquarters and essential combat, combat support, and combat service support elements to conduct sustained operations. Adequate additional combat units/elements and combat support and combat service support will be provided to the battalion when required to accomplish the mission. Specialized forces such as engineers required for specific tasks or for limited periods of time will normally be placed in support of, or attached to, the battalion by higher headquarters. Forces such as Army aviation and air defense artillery whose capabilities exceed the normal requirements of the battalion or whose attachment would unduly burden the commander are generally held under centralized control and placed in support when required.

Section II. THE INFANTRY BATTALIONS

2-2. Battalion Organization

The major units which compose the infantry, mechanized infantry, airmobile infantry, and light infantry battalions are a headquarters and headquarters company, a combat support company, and three rifle companies. The airborne infantry battalion consists of a headquarters and headquarters company and three rifle companies. For details of organization and equipment, see appropriate TOE and appendix B.

2-3. Headquarters and Headquarters Company

a. In all battalions, the battalion headquarters is organized to provide command and control for training and employment of organic and attached units, and the headquarters company provides personnel and equipment to operate and support the battalion headquarters. In the airborne infantry battalions (which do not have a combat support company), the headquarters company also supports the organic and attached combat, combat support, and combat service support elements and

provides ground surveillance, reconnaissance, mortar, air defense, and antitank support for the battalion.

b. The company headquarters is composed of the personnel and equipment required for support of the battalion headquarters and headquarters company. It includes the company commander (who is also the headquarters commandant), executive officer, first sergeant, company clerk, supply sergeant, and armorer.

2-4. Combat Support Company

a. The combat support company's mission is to provide ground surveillance, reconnaissance, mortar, air defense, and antitank support for the infantry, mechanized infantry, airmobile infantry, and light infantry battalion.

b. The combat support company commander recommends the employment of his organic platoons. In addition to commanding his unit, he performs other duties as directed by the battalion commander such as manning an alternate command post or operating a task force headquarters.

c. See appropriate TOE and appendix B for organization and equipment.

2-5. Rifle Companies

a. The rifle companies organic to each battalion are the maneuver elements of the battalion and are directly subordinate to the battalion commander.

b. The mission of each rifle company is to close with the enemy by means of fire and maneuver in order to destroy or capture him or to repel his assault by fire, close combat, and counterattack.

c. See appendix B and appropriate TOE and FM 7-series manuals for the organization and equipment peculiar to the rifle companies.

Section III. COMMAND AND CONTROL

2-6. General

a. Command is the authority a commander exercises over subordinates by virtue of rank and assignment. It includes responsibility for effectively using available resources and for organizing, directing, coordinating, and controlling the employment of military forces to accomplish the mission.

b. The trends toward increased mobility and increased conventional firepower, the threat and capability for mass destruction, and the increased speed and tempo of modern combat operations require a high degree of flexibility in the exercise of command. The commander must make decisions rapidly and execute them forcefully. Flexibility of thought is essential.

c. The requirements placed on the commander during combat operations prevent him from personally accomplishing or directly supervising all tasks in the time and manner required. To accomplish his mission, he must conduct operations through an efficient chain of command and effective use of his staff.

d. Though often referred to as separate elements, the commander and his staff are an entity. Effective command requires that the commander and his staff function as a team, with the staff serving as an extension of the commander.

2-7. The Commander

a. *General.* Command, the authority as defined above and derived from law and regulation, is accompanied by commensurate responsibility that cannot be delegated. The commander alone is responsible for the success or failure of his command. He meets his responsibilities through leadership and by planning, making decisions, and issuing orders, and by personally supervising the execution of his orders.

b. *Authority.* The commander exerts authority to direct actions and to establish standards that insure accomplishment of the mission. The soundness of his judgment and the principles and tech-

niques he employs determine the effectiveness of his leadership.

c. *Leadership.* Leadership is a personal and intangible quality that is a combination of example, persuasion, and compulsion which serves as an extension of the commander's self. The commander must devise means to project his character to create a positive impression on his command. The leadership characteristics and traits displayed in his daily activities help him inspire and earn the respect, confidence, willing obedience, and loyal cooperation of his command.

d. *Employment of Subordinates.* The accomplishments of the command are the sum of the accomplishments of its components. The degree of skill and understanding with which the commander employs his subordinates is reflected in the operations of his command. Subordinates must be carefully trained and motivated, and full advantage must be taken of their individual qualities and capabilities.

e. *The Individual.* The commander must be acutely sensitive to the physical and mental conditions of his troops, and he must understand the stresses and strains of combat. His actions must inspire and motivate his command to succeed despite adverse conditions. He must assure his troops that hardship and sacrifice will not be needlessly imposed and that their well-being is of concern to him.

2-8. Chain of Command

a. *General.* The successive commanders through which command actions are channeled form the chain of command, and effective military operations demand strict adherence to that chain. Under unusual or extreme conditions, however, the commander may find it necessary to bypass echelons of the chain of command. When this occurs, the commander bypassing the chain automatically assumes responsibility for orders given, and the intermediate commander is informed of the actions taken. The normal chain of command is reestablished at the earliest opportunity.

b. Initiative. On occasion, loss of communication may preclude issuing orders to subordinate commanders. In this event, the subordinate is expected to act on his initiative to accomplish the required action.

c. Continuity of Command. Commanders must maintain the chain of command. The succession must be prescribed for all contingencies from temporary absence to the loss of a commander and staff.

2-9. Command and Staff Relationship

a. Purpose of the Staff. The staff provides advice and assistance to the commander in the exercise of command.

b. Staff Functions.

(1) The staff embodies no authority within itself. Its authority is derived from the commander and must be exercised in his name.

(2) Details belong to the staff and include the preparation of estimates, plans, and orders. The commander addresses himself to the broad essentials critical to the problem at hand.

(3) The staff acts within the commander's policies and concepts. In the absence of policy, they refer to the commander. If the commander is unavailable, they act on their initiative in anticipation of the commander's policy.

c. Staff Relationships.

(1) Maximum efficiency is achieved when the commander and his staff function in an atmosphere of mutual confidence and respect; however, the commander must preserve his identity and retain his perspective to insure prompt response to orders.

(2) In relations with subordinate commanders, the staff operates in a spirit of service, cooperation, and assistance. It translates the commander's decision into clear and timely directives, keeps abreast of the situation, and keeps the commander, subordinate commanders, and adjacent units informed. The staff serves the subordinate unit as well as it serves the commander. The commander insures that the prerogative of direct contact with him by subordinate commanders is not inhibited by his staff.

(3) Proper staff relationships with higher and adjacent headquarters, assisted by frequent contact and exchange of information, contribute materially to operational efficiency and mutual understanding.

d. Liaison.

(1) Liaison is maintained between elements to insure mutual understanding and unity of purpose, and to facilitate mutual support.

(2) Liaison should, when possible, be reciprocal between higher, subordinate, and adjacent units. Liaison is essential when a unit is placed directly under the command of a combined headquarters or headquarters of an allied unit, and between adjacent battalion size or larger units.

2-10. Decisionmaking

a. General. Decisionmaking is a fundamental responsibility of command. All military operations are based on decisions, and sound decisions contribute to successful operations. The sequence by which the commander, in conjunction with his staff, makes decisions is delineated in FM 101-5.

b. The Decision. The commander's decision is based on two primary factors: the requirements of the mission and the courses of action open to him. It is the result of his subjective analysis of these and other factors, to include the estimates of his staff. The soundness of the decision is a reflection of the commander's professional judgment, experience, intelligence, perception, and strength of character.

2-11. Battalion Headquarters and Staff

The battalion headquarters consists of the battalion commander, the executive officer, coordinating (unit) staff officers, special staff officers, appropriate personnel to support staff functions and the sergeant major. The headquarters is organized for continuous operations.

a. Battalion Commander.

(1) The battalion commander commands all elements of the battalion including attachments. He maintains direct contact and a close relationship with his subordinate commanders. The battalion commander operates directly under the brigade commander and has access to him at all times.

(2) To take full advantage of the flexible organization of the battalion, the commander must have complete knowledge and understanding of combined-arms operations. He must make timely decisions and be capable of operating with mission-type orders which require exercise of initiative and professional judgment in execution. In turn, he provides his subordinates with guidance for their operations and allows them freedom of action in implementing his orders. He must be alert to exploit the opportunities for decisive results which arise in combat.

(3) The commander's relationship with his subordinates is as follows:

(a) Organic. The relationship of the battalion commander with his unit commanders is

direct and personal. He encourages them to deal directly with him when appropriate. The battalion commander does not interfere with the command responsibilities of his subordinates, except in emergencies. His actions promote confidence, respect, loyalty, and understanding while giving the commander firsthand knowledge of the tactical situation and the status of the battalion.

(b) *Attached.* The battalion commander's relation with attached unit commanders is the same as with his organic unit commanders.

(c) *Supporting.* The battalion commander insures that the supporting unit establishes liaison and communication with the battalion. He must keep the unit informed of the situation and the support needed. The commander of a supporting unit advises the battalion commander on the capabilities and limitations of his unit. He further recommends its employment, acts as staff advisor, and frequently accompanies the battalion commander or staff members on reconnaissance. Requests to a supporting unit for support are honored by that unit as an order. In case of conflicts, the supporting unit refers matters to its parent headquarters; however, the order in question will be carried out while the conflict is being resolved.

(4) In his exercise of command in combat, the battalion commander locates himself where he can best direct, control, and influence operations. He may be at an observation post, with the main attack element, airborne in a command and control aircraft, or elsewhere in the area of operations where his presence is required. When the commander leaves the command post, he informs his staff of his itinerary and of plans to be made or action to be taken if the situation changes during his absence. If he issues orders while away from the command post or obtains pertinent information of the situation, he informs his staff and subordinate commanders at the first opportunity. When away from the command post, he keeps in contact by appropriate communication means.

b. *Command Sergeant Major.* The sergeant major is the senior noncommissioned officer in the battalion. He acts in the name of the commander when dealing with other noncommissioned officers in the battalion and is the commander's advisor on enlisted personnel affairs. He supervises the functioning of the enlisted men in the battalion headquarters and assists the executive officer and the S1 in administrative matters and preparation of special reports. He maintains close contact with subordinate and attached unit NCOs and assists them in bettering the performance of their duties.

c. *The Coordinating (Unit) Staff.* The unit staff

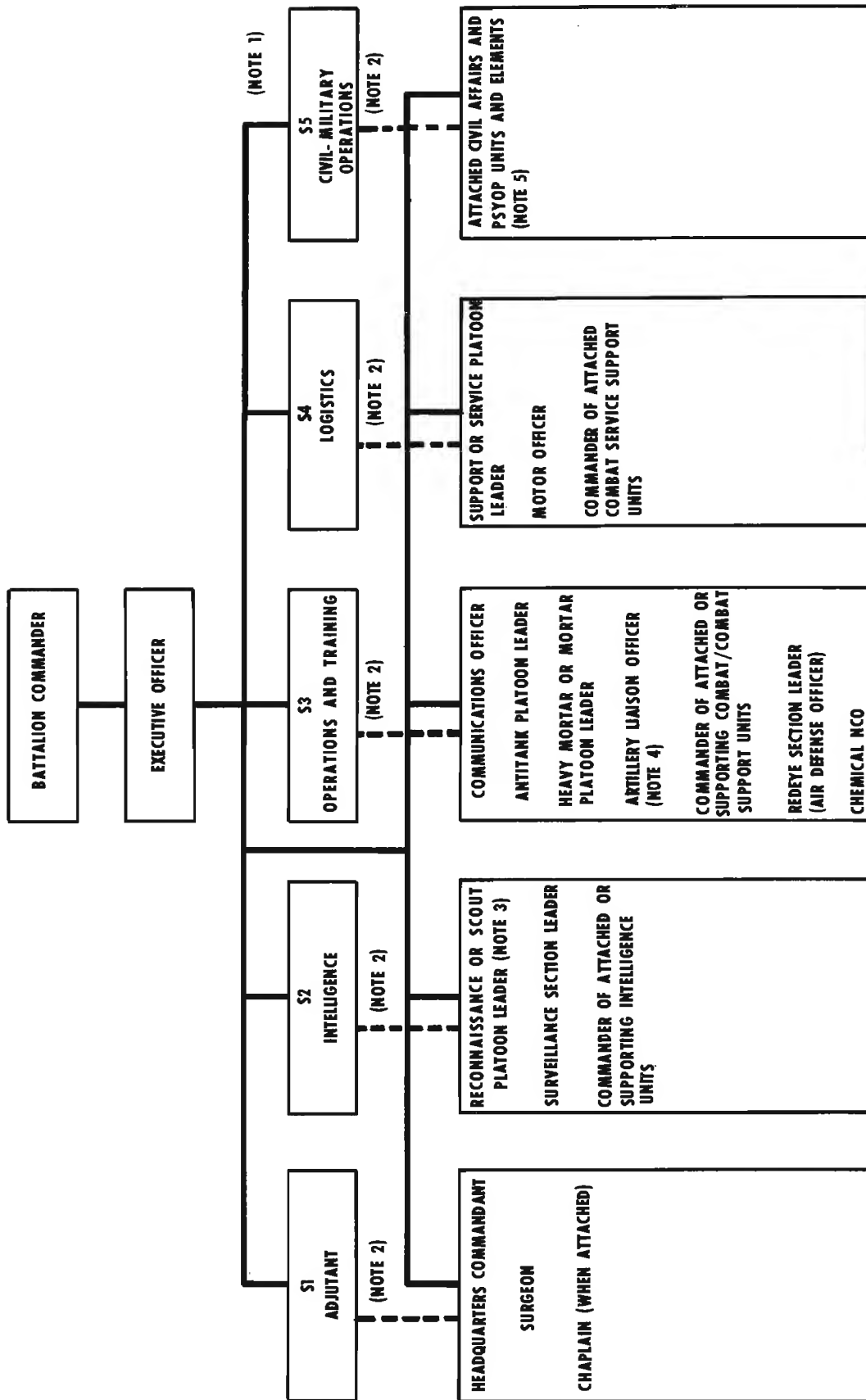
consists of the executive officer, S1, S2, S3, S4, and when authorized, S5 (civil-military operations). They are the principal assistants to the commander in the exercise of command. The staff reduces the demands on the commander's time and assists him by providing information, making estimates and recommendations, preparing plans and orders, and supervising the execution of orders issued by, or in the name of, the commander. The commander assigns clear-cut responsibility for functions to unit staff officers to insure that conflicts do not arise. The general relationship between the unit staff and the special staff (para 2-12) is shown in figure 2-1.

d. *Executive Officer.* The executive officer is second in command and the principal assistant to the battalion commander. His primary function is direction and coordination of the unit staff. He transmits the commander's decision to staff sections and in the name of the commander to subordinate units when applicable. The executive officer keeps abreast of the situation and future plans and, during the commander's absence, represents him and directs action in accordance with established policy. He is prepared to assume command at any time.

e. *S1 (Adjutant).* The S1 has unit staff responsibility for personnel functions and other administrative matters not assigned to another staff officer (to include the executive officer). He performs personnel functions similar to those of special staff officers on a general staff who are not represented on a battalion staff, such as the adjutant general, staff judge advocate, provost marshal, and special services officer. The adjutant's major areas of responsibility are:

(1) *Maintenance of unit strength.* Individual replacements for the battalion are requisitioned by the personnel service division, AG section, based upon TOE authorizations and morning report vacancies. The S1 requests replacements after coordination with the S3 and upon approval of the commander. He maintains records and reports which keep the commander informed of the strength status of the battalion. The S1 coordinates with the S3 and appropriate special staff officers in determining the priorities of allocation of individual and crew replacements and the requirement for unit replacements.

(2) *Personnel management.* The S1 assists the battalion and company commanders in the discharge of their responsibilities for personnel management by supervising such procedures as classification, assignment, appointment, reduction, promotion, reassignment, reclassification,



- NOTES:
1. WHEN AUTHORIZED.
 2. DOTTED LINE INDICATES PRIMARY RESPONSIBILITY FOR STAFF SUPERVISION. THE COMMANDER MAY REDESIGNATE RESPONSIBILITY TO AVOID MISSION CONFLICT AND TO BETTER ACHIEVE OBJECTIVES.
 3. RECONNAISSANCE OR SCOUT PLATOON LEADER IS UNDER S3 CONTROL FOR ALL MISSIONS EXCEPT RECONNAISSANCE.
 4. FSCORD (WHEN PROVIDED).
 5. UNDER S3 STAFF SUPERVISION WHEN S5 IS NOT AUTHORIZED.

Figure 2-1. Relationships between unit staff and special staff.

transfer, elimination, separation retirement, and rotation. (The appropriate staff sections in the division administration company maintain most battalion records, reports, files, and correspondence, as prescribed in FM 61-100 and DA Pam 600-8.) The S1, through his personnel staff NCO, furnishes and receives information from the division/separate brigade AG section. The S1 is responsible for battalion records, documents, correspondence, and personnel statistics that are not kept by the division/separate brigade AG section. He also has staff responsibility for all civilian personnel management and the collection, safeguarding, and evacuation of prisoners of war.

(3) *Development and maintenance of morale.* The S1 keeps the commander informed on morale and *esprit de corps* within the battalion. He assists the commander in such matters by establishing a personnel services program which includes leave, rest, recreation activities, character guidance, postal services, and religious activities, and he assists with finance, welfare, legal assistance, and special services. The S1 also has staff responsibility for formulating plans and carrying out policies relating to awards and decorations; and he plans, coordinates, and supervises all graves registration activities within the battalion. The S1 also supervises all health services within the battalion. To accomplish this, he coordinates with the surgeon and the brigade S1. In addition, he coordinates with the S4 for the exact location of the aid station, normally located in the combat trains area, and with the S2 on the treatment and evacuation of wounded prisoners of war.

(4) *Maintenance of discipline, law, and order.* The S1 keeps the commander informed on all matters affecting the state of discipline, and he recommends measures to maintain or improve discipline within the battalion. He assists the commander in the maintenance of discipline by supervising law and order activities such as control and disposition of stragglers and the administration of military justice within the battalion.

(5) *Headquarters management.* The S1 has staff responsibility for the movement, internal arrangement, organization, and operation of the headquarters, and the allocation of shelter within the headquarters.

(6) *Procurement and utilization of civilian labor.* The S1 has staff responsibility for the procurement and utilization of civilian labor and determination of limitations on skills which may affect the local civilian situation (in coordination with the battalion S1, S4, and S5).

f. *S2 (Intelligence Officer).*

(1) The S2 has the staff responsibility for combat intelligence, counterintelligence, and intelligence training. The S2 organizes for continuous operations during combat in coordination with the S3. The S2 and S3, through close coordination and cooperation, are prepared to perform each other's duties.

(2) Among his duties, the S2—

(a) Collects, evaluates, and interprets information concerning the effects of the weather, terrain, and the enemy on the battalion mission.

(b) Plans and supervises surveillance activities to include location for and emplacement of sensors.

(c) Establishes or supervises the establishment of battalion ground and aerial observation posts and coordinates the location of subordinate unit observation posts.

(d) Prepares battalion reconnaissance patrol plans (in coordination with the S3), supervises briefing and debriefing of battalion reconnaissance patrols, and disseminates reconnaissance patrol plans and reports.

(e) Plans and supervises the operation of the battalion reconnaissance platoon in the execution of intelligence missions.

(f) Submits requests for support to meet aerial surveillance requirements of the battalion.

(g) Coordinates target acquisition within the battalion and disseminates target information to fire support agencies (in coordination with the S3 and fire support coordinator (FSCoord)).

(h) Coordinates and supervises chemical detection, biological sampling, radiological monitoring and survey, posting of the CBR situation map, and the transmission of wind messages to subordinate units.

(i) Supervises examination and exploitation of captured personnel, documents, and materiel for information of immediate tactical value to the battalion (in coordination with appropriate staff member) in accordance with command policy and FM 30-5.

(j) Plans and conducts the training of intelligence personnel and (in coordination with the S3) supervises the intelligence and counterintelligence training for personnel in the battalion.

(k) Supervises the intelligence activities of attached and supporting elements.

(l) Determines map and aerial photograph requirements and provides request and distribution instructions to the S4.

(m) Supervises unit censorship in accord-

ance with FM 30-28 when established (in coordination with the S1).

(n) Maintains a current intelligence estimate and situation map; insures that important items of information and intelligence are recorded in the unit journal; and prepares intelligence summaries and intelligence portions of operations plans, orders, and annexes, operational situation reports, and the battalion SOP.

(o) Obtains and distributes weather information.

(p) Insures that information and intelligence about the enemy is disseminated expeditiously to higher, subordinate, and adjacent units.

(q) In coordination with the S5, maintains close monitorship of information pertaining to the population and their political and sociological institutions.

(r) Exercises staff supervision over the electronic warfare activities of supporting USASA units and elements.

g. S3 (Operations and Training Officer).

(1) The S3 has staff responsibility for matters pertaining to the organization, training, and operations of the battalion and attached units.

(2) Among his operations duties, the S3—

(a) Keeps the commander and staff officers informed of the tactical situation and recommends action to be taken by the battalion.

(b) Coordinates the plan of fire support with the scheme of maneuver.

(c) Keeps abreast of the tactical situation and supervises posting of the situation map.

(d) Plans tactical troop movements to include the march order (in coordination with the S4).

(e) Recommends the tactical employment of organic and attached units (in coordination with other staff officers and unit commanders).

(f) Supervises the communications officer in the preparation of the communications plan.

(g) Prepares the battalion operation order for the commander. When the commander issues the operation order orally, the S3 insures that a complete order is written for record or a synopsis is included in the daily journal.

(h) Prepares for future operations, guided by information obtained from the commander and staff and by knowledge of the present situation of the battalion.

(i) Prepares operational records and reports and historical reports, and recommends training to correct combat deficiencies.

(j) Supervises CBR operations.

(k) Supervises the air defense officer in the preparation of the air defense plan and air defense operations.

(l) Coordinates with the S5 for the civil-military operations aspects of tactical operations. In the absence of an S5, he assumes the duties and responsibilities of the S5 and supervises the employment of civil affairs and psychological operations units.

(m) Recommends new or modified tables of organizational equipment.

(3) Among his general duties, the S3—

(a) Has staff supervisory responsibility for the preparation and execution of training directives, programs, orders, field exercises, and maneuvers.

(b) Selects training areas and ranges, and allocates training aids and equipment.

(c) Organizes and supervises the conduct of battalion schools.

(d) Makes training inspections, and prepares and supervises training tests.

(e) Is responsible for the supervision of CBR training.

(4) The S3 Air is the principal assistant to the S3. He assists in planning and assembling data and preparing reports. He assumes the duties of the S3 in his absence. He is a qualified nuclear weapons employment officer and will normally assist the FSCOORD in preparing the detailed target analysis (when required). As a member of the Army air/ground system, he coordinates the employment of close air support with the FSCOORD, the tactical air control party, the forward air controller, and the Redeye section leader. Other duties of the S3 Air include—

(a) Preparing SOP for air/ground operations (in coordination with the S2).

(b) Preparing the air support portion of the fire support plan.

(c) Preparing or processing requests for immediate and preplanned close air support.

(d) Recommending and disseminating information on the location of the FSCL (fire support coordination line) and other control measures used in coordinating employment of tactical air support.

(e) Providing assistance to the S2 in preparing immediate and preplanned requests for tactical air reconnaissance.

(f) Supervising air/ground recognition and identification procedures within the battalion.

h. S4 (Logistics Officer).

(1) The battalion S4 is charged with the staff responsibility for logistics and is primarily concerned with materiel and services. He supervises the activities of all logistical elements in the battalion, both organic and nonorganic.

(2) He has staff responsibility for the formulation of logistical policy, and for planning, coordinating, and supervising the logistical effort. His duties include—

(a) Advising and keeping the commander and staff informed on logistical matters.

(b) Coordinating with higher headquarters and assisting subordinate commanders on logistical matters.

(c) Supervising the battalion trains.

(d) Accomplishing area damage control planning.

(e) Preparing paragraph 4 of the operation order.

(f) Planning administrative troop movement (in coordination with the S3).

(g) Supervising the support or service platoon leader, motor officer, and commanders of attached combat service support units.

i. S5 (Civil-Military Operations Officer). The civil-military operations officer has staff responsibility for those actions embracing the relationship between the military forces and civil authorities and people in the area of operations and for those actions in which psychological operations (PSYOP) techniques are used to support the achievement of command objectives. In the performance of these functions, he is responsible for:

(1) Advising, assisting, and making recommendations that relate to civil affairs (CA) and PSYOP aspects of current or proposed operations.

(2) Preparing CA and PSYOP estimates.

(3) Preparing CA and PSYOP portions of operations plans and orders.

(4) Coordinating civil support for tactical operations and for preventing civilian interference with these operations.

(5) Coordinating and providing staff supervision of community relations activities of the battalion.

(6) Coordinating military support of populace and resources control programs.

(7) Coordinating civic action projects to aid the local populace.

(8) Determining class X supply requirements and priorities for allocation.

2-12. The Special Staff

a. Communications Officer/Communications Platoon Leader.

(1) Under staff supervision of the S3, the battalion communications officer, in addition to leading the communications platoon, coordinates and exercises technical supervision over the training and activities of communications personnel of the battalion.

(a) Coordinates with the S1 on the exact location and interior arrangement of the command post.

(b) Coordinates with the S2 on the location of observation posts and on communications security measures.

(c) Coordinates with the S3 on tactical communications requirements and training of communications personnel.

(d) Obtains current standing signal instructions (SSI) and signal operating instructions (SOI) from higher headquarters and prepares and distributes extracts of the SOI and SSI, as required.

(e) Coordinates with the S4 on matters of supply and maintenance of signal equipment and route priorities.

(f) Prepares the communications portion of the battalion SOP.

(g) Submits recommendations for paragraph 5 of operations order and signal annexes of operation orders when required.

(h) Supervises the installation, operation, and maintenance of signal equipment issued to the communications platoon and battalion headquarters.

(i) Supervises the movement of communications installations when the command post displaces.

(2) For a detailed discussion of actions and responsibilities of the communications officer and the activities of the communications platoon, see appendix F.

b. Surgeon/Medical Platoon Leader. The platoon leader of the battalion medical platoon is a Medical Corps officer also designated as the battalion surgeon. As the battalion surgeon, he serves as a special staff officer with direct access to the battalion commander on matters requiring the professional judgment and advice of a medical officer. He normally functions under the staff supervision of the S1 in matters of medical treatment and evacuation of patients and employment of medical personnel. He deals with the S4 on

nonmedical equipment and supplies and with the supporting medical units for medical equipment and supplies. He establishes the battalion aid station and supervises its operation, and he arranges for displacement of the aid station, when required. Specifically, the battalion surgeon—

(1) Recommends and supervises procedures for locating, providing emergency medical treatment for, collecting, sorting, and evacuating patients; and for medical treatment within the battalion.

(2) Recommends measures for the prevention and control of disease.

(3) Supervises the training of all troops in first aid, hygiene, and sanitation, and the training of all medical troops for individual and unit proficiency.

(4) Recommends and supervises provision of medical care for prisoners of war and, when directed by the commander, medical care for non-combatants in the battalion area.

(5) Supervises the examination of captured medical documents and equipment in coordination with S2 to obtain information of intelligence value.

(6) For a detailed discussion of actions and responsibilities of the surgeon and the medical platoon, see appendix G.

c. Motor Officer. The motor officer (when authorized) is the principal advisor on transportation and maintenance matters. He is responsible for the supervision of organizational maintenance and class IX supply (except for communication and medical equipment). He supervises the recovery and evacuation of vehicles from the battlefield and recommends traffic control measures within the battalion area. He exercises operational control over the maintenance platoon. He operates under the staff supervision of the battalion S4.

d. Air Defense Officer/Redeye Section Leader. Under staff supervision of the S3, the battalion air defense officer, in addition to commanding the Redeye section, serves as a special staff officer for air defense with the following duties:

(1) Advises the commander and staff on air defense matters.

(2) Develops the battalion air defense plan.

(3) Maintains an operational journal of all changes in rules of engagement.

(4) Maintains a consolidation of the section reports.

(5) Prepares the air defense portion of the battalion SOP.

e. Chemical NCO. The staff chemical NCO assists the unit staff in areas of their CBR responsibilities under the staff supervision of the S3.

(1) The chemical NCO assists the S1 in—

(a) Preparing records and reports on CBR casualties.

(b) Maintaining records of radiation dosage status of subordinate units.

(2) The chemical NCO assists the S2 in—

(a) Preparing radiological fallout predictions for enemy-delivered nuclear weapons.

(b) Disseminating the fallout prediction message for enemy-delivered nuclear weapons.

(c) Disseminating effective wind messages to subordinate units.

(d) Directing and supervising chemical detection, biological sampling, and radiological monitoring and survey operations within the battalion.

(e) Consolidating chemical detection and radiological survey reports received from subordinate units, and forwarding consolidated reports to brigade.

(f) Maintaining CBR situation maps.

(g) Supervising, in conjunction with the S3, the training of company chemical detection and radiological monitoring and survey teams.

(h) Recommending CBR reconnaissance of routes and areas.

(i) Analyzing information to estimate enemy CBR capabilities.

(j) Alerting higher, subordinate, and adjacent units of enemy CBR attack.

(3) The chemical NCO assists the S3 in—

(a) Preparing fallout prediction for friendly delivered nuclear weapons.

(b) Preparing the battalion CBR training program.

(c) Disseminating the fallout prediction message for friendly delivered nuclear weapons to subordinate units.

(d) Supervising CBR training within the battalion.

(e) Recommending units, personnel, and equipment from combat support units, as required, to conduct radiological surveys.

(f) Preparing the CBR portion of the battalion SOP.

(g) Preparing plans for the integrated employment of chemical agents with the scheme of maneuver.

(h) Coordinating with the FSCOORD in preparation of chemical target analysis, integra-

tion of chemical fires into the battalion fire support plan, and determination of troop safety requirements when chemical agents are to be used.

(i) Preparing recommendations for the integration of chemical mines in minefields and barrier plans.

(j) Planning and supervising the employment of flame weapons, flame field expedients, and smoke in support of operations.

(k) Planning for the employment of attached or supporting chemical troop units.

(4) The chemical NCO assists the S4 in—

(a) Inspecting CBR equipment in subordinate units.

(b) Supervising the requesting and distribution of CBR equipment and supplies.

(c) Planning for and supervising the installation of collective protection facilities when appropriate.

f. Liaison Section. Two liaison officers are organic to the battalion headquarters and normally function directly under the supervision of the executive officer. The battalion commander normally makes them available to specific staff sections for use as assistants when they are not engaged in liaison activities. The S3 is normally assigned responsibility for briefing and debriefing these officers; however, they effect liaison with higher and adjacent units for all of the staff sections and disseminate information to all interested staff officers. For other duties of liaison officers, see FM 101-5.

g. Headquarters Commandant. The headquarters commandant's duties are similar to those discussed in FM 101-5 for headquarters commandants in general. These duties include the following and are performed under the staff supervision of the S1.

(1) Supervises the custody and evacuation of prisoners of war and the selection of the prisoner-of-war collecting point (in coordination with the unit staff).

(2) Supervises the custody and return of stragglers to units.

(3) Supervises the quartering party and establishment of command post facilities in the absence of the S1.

(4) Plans for and supervises command post security (in coordination with the S3). Security elements are also provided for the command group.

h. Fire Support Coordinator. The FSCOORD normally is a liaison officer from the field artillery

battalion in direct support of the brigade to which the battalion is attached. When an artillery liaison officer is not available, the battalion commander normally designates the mortar platoon leader as FSCOORD. The FSCOORD functions under the staff supervision of the S3. Specific responsibilities of the FSCOORD are to—

(1) Advise the commander and staff on fire support matters.

(2) Establish and supervise the operations of the fire support coordination center (FSCC).

(3) Prepare the fire support plan and coordinate with representatives of other fire support agencies. (He, as nuclear weapons employment officer, will prepare the detailed target analysis when required. S3 Air will assist in this preparation).

(4) Coordinate all supporting fires delivered on surface targets. For detailed principles and responsibilities of fire support coordination, see FM 6-20-1 and FM 6-20-2.

2-13. Battalion Command Post

a. The direction and control of battalion operations are exercised primarily through the battalion command post (fig 2-2). Personnel normally at the command post include the battalion commander, executive officer, and the members of the unit staff, necessary special staff officers, liaison personnel, and supporting personnel, vehicles, and equipment. A description of type location, operation, and displacement of the command post are prescribed in the unit SOP. The command post includes the tactical operations center (TOC), and the FSCC.

b. Fire support coordination is accomplished in the FSCC. The FSCC is normally collocated with the battalion TOC. The degree of formality is determined by the battalion commander. Key personnel normally involved in the operation of the FSCC include the S3 Air, the FSCOORD, the battalion mortar platoon commander (or his representative), a tactical air control party (TACP), a naval gunfire liaison officer (if naval gunfire support is provided), and representatives of any other fire support agencies.

c. Considerations that influence selection of the command post location are friendly and enemy troop dispositions, routes of communication, communications requirements, tactical situation, space required, sufficient hardstand for vehicles, cover, concealment, and security.

d. In the attack, the initial location is well forward to facilitate control and avoid early displace-

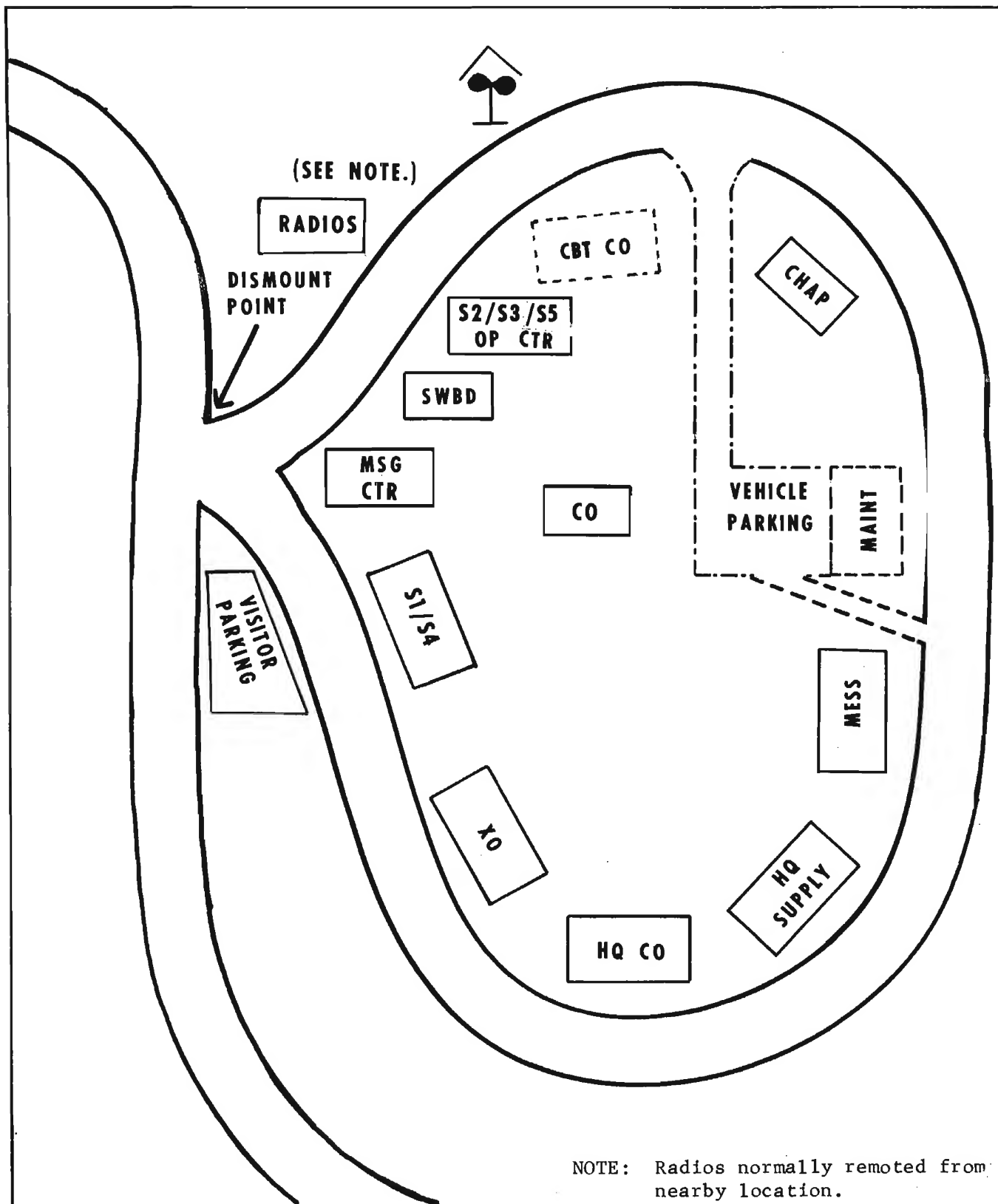


Figure 2-2. Organization of typical battalion command post.

ment. In the defense, it is generally located near the rear of the defensive area to avoid displacement in the event of enemy penetration. The command post may be located near the reserve to obtain security. Local security is provided by drivers and other personnel available within the CP area. Vehicle-mounted weapons are normally assigned specific sectors of fire.

e. The S3 recommends the general location of the command post after consultation with the communications officer (who suggests the general location from a communication viewpoint) and the S1 (who suggests a possible location from the viewpoint of interior arrangement requirements). Following approval of the location by the battalion commander, the S1, in conjunction with the communications officer and headquarters commandant, selects the exact site.

f. In most airmobile operations and generally in most stability operations, it is frequently necessary to divide the command post into a forward and rear echelon. This requirement is in addition to the formation of the battalion command group referred to in paragraph 2-14. In stability operations, the forward command post normally is collocated with a supporting artillery unit. Since provision for security of artillery units is required, this practice usually precludes the need for providing additional security for the forward command post.

2-14. Battalion Command Group

a. During tactical operations, the battalion commander may form a command group (a subdivision of the command post) to operate forward of the command post. There is no fixed organization for the group; rather, it consists of personnel and equipment selected by the battalion commander for a given situation. It may include the S2, S3, FSCoord, necessary liaison and communications personnel, command radio facilities, and vehicles (to include aircraft), if appropriate. By operating forward of the command post with a command group, the battalion commander usually can more effectively influence combat operations. The command group maintains continuous communication with the command post to exchange essential information.

b. During mounted movement on one axis of advance, the command and control facilities are normally divided. A command group will operate near the head of the main body while the remainder of the command post will move near the rear of the battalion formation. The primary control of the unit will stem directly from the com-

mand group. In situations where the battalion moves on two axes, the commander may place control facilities on each axis.

c. In most airmobile operations, and frequently during stability operations, a command and control helicopter is provided the battalion commander. Normally he is accompanied in the aircraft by the S3, the FSCoord, and/or other selected personnel.

2-15. Alternate Command Posts

a. An SOP is prepared and units trained to insure continued command and control in the event the battalion command post is rendered inoperative through loss of command post personnel and equipment. Plans should provide for immediate assumption of command by the senior officer present and the formation of a new battalion headquarters, including its personnel and communications equipment required for operations.

b. The plan normally will include a seniority listing of officers, identification of possible staff officers assigned to subordinate units, and provision for using the facilities of the command group (if separated from the command post), combat support company command post, the combat trains, or the command post of one of the rifle companies as an alternate battalion command post.

2-16. Headquarters Management

a. The S1 determines the interior arrangement of the command post in coordination with the communications officer and the headquarters commandant.

b. The message center is located near the entrance to the command post.

c. The motor park should have good entrances and exits and be concealed to prevent detection from the air if practicable.

d. Radios are remoted to the command post from locations on nearby terrain that increase their effectiveness and provide a measure of communications security through deception as to actual location of the CP.

2-17. Operation of Command Post

a. The command post is organized for continuous operation. Staff elements normally operate in shifts to insure effective 24-hour operation.

b. Incoming messages delivered by messengers normally go first to the message center. The mes-

sages are signed for and delivered to the staff section most interested in their contents, then to other staff sections for information. The executive officer indicates action to be taken by staff sections when appropriate.

c. All income messages may be addressed to the commanding officer; however, they are normally not sent to him directly. The staff acts on messages received and, where appropriate, informs the commander of their contents without delay.

d. Outgoing messages are delivered to the message center in duplicate. The originator of important messages affecting the unit or staff section insures that a summary is entered in the unit journal. The messages are processed and recorded at the message center.

e. Where necessary, incoming operational messages are carried directly to the operations center and processing completed at a later time.

f. Radio messages are normally received directly at the operations center and disseminated to appropriate personnel for action or information. A synopsis of important messages received is prepared for inclusion in the unit journal.

2-18. Displacement of Command Post

a. Displacement of the command post may be dictated by change in the planned or current tactical disposition of friendly forces, or by enemy action to include—

- (1) Interference with signal communications.
- (2) Ground maneuver threatening security of the command post.
- (3) Enemy intelligence (air surveillance and other means) capability of locating the command post if it remains too long in one location.

b. When displacement of the CP is required, the S3 coordinates with the battalion communications officer and the S1 before recommending to the commander a new general CP location and a time for displacement. Prior to displacement, the S1 coordinates with the following staff officers—

- (1) S2 for weather forecast, road conditions, and enemy situation.

- (2) S4 for transportation and logistical considerations.

- (3) S5 for civil-military considerations.

- (4) Communications officer.

- (5) Headquarters commandant for movement of the command post, arrangements for security and guides, and the departure time of the quartering party.

c. The quartering party, consisting of the quartering officer (S1 or headquarters commandant), a security element, communications and medical representatives, plus representatives of the various staff sections and units under battalion control that will occupy space in the CP area, move to the general location for the new command post. After the quartering officer selects the exact CP site, he designates the location of each facility and has guides posted to direct incoming elements into the designated areas. The quartering officer notifies the command post when arrangements have been completed for its displacement.

d. The command post normally displaces in two echelons to insure continuous control of operations. Usually the first echelon consists of the command group. As the command group moves to the new area and prepares for operations, the remainder of the command cost continues operating in the old location under control of the executive officer. Brigade headquarters and organic, attached, and supporting units are notified of the exact location and time of opening of the new command post. When the command group is ready to operate in the new location, the executive officer is notified and the remainder of the old command post is closed and moved to the new location.

e. On occasion, the command post may displace as a unit in one move. In this case, command and control is exercised by the command group while on the move.

f. In stability operations, the command post may be relocated frequently to safeguard against the enemy fixing the location and conducting raids or harassing attacks, or deliberately hardened to degrade the effects of enemy action directed at that facility.

Section IV. BATTALION TRAINS

2-19. General

a. The trains contain the combat service support elements of the battalion.

b. The exact composition of the battalion trains

will vary in accordance with the tactical situation and the disposition of the tactical units attached to, or in support of, the battalion and will depend to some degree on the location of the brigade trains.

c. The S4 has staff responsibility for the operation, security, and displacement of the battalion trains.

d. When a subordinate element of the battalion is detached, a proportionate share of the battalion trains normally accompanies the unit. As a general rule, for the rifle company, this will consist of the company aid men, evacuation team with ambulance, mess team with vehicle, and the necessary cargo trucks from the battalion transportation section.

2-20. Characteristics of Trains Areas

The trains areas should—

a. Be convenient to the units being served and, if possible, be located on or near a road net that will permit units to reach the areas quickly and easily. The road net should contain alternate routes to achieve flexibility.

b. Be located far enough from the combat elements so that they do not occupy space needed by these units or interfere with their operations in any way.

c. Contain sufficient area to permit dispersion of vehicles and activities.

d. Offer concealment from ground and aerial observation.

e. Offer hardstand for vehicles.

f. Be where no terrain feature, such as an unfordable river, may become a barrier to logistical operations.

g. Contain terrain features that favor defense against air or ground attacks and facilitate local security.

h. Be so disposed that, in conjunction with other installations, the trains do not present a lucrative nuclear target.

i. Offer, if appropriate, a suitable landing site for attached or supporting Army aircraft employed in resupply activities.

j. Be near a source of water.

k. Be beyond the range of the mass of enemy light artillery fire. (This is not applicable to combat trains.)

2-21. Organization

The battalion trains are habitually divided into combat and field trains when the battalion is committed. When the battalion, alone or part of a larger force, is in reserve, the battalion trains

may be employed as unit trains. This normal division of the battalion's logistical resources permits the combat trains to be located relatively close to the forward companies and be in position to provide immediate and responsive logistic support. The field trains, generally located in the brigade trains area, are positioned to facilitate logistic support operations between the battalion and the division support command or separate brigade support battalion elements located in the same area. See figure 2-3 for relative locations of the trains.

2-22. Battalion Combat Trains

a. *Composition.* The composition of the combat trains is tailored to fit the tactical situation. Normally, it will include class III and V distribution points, maintenance platoon contact team(s), and the battalion aid station. The exact composition of the combat trains depends on the mission and situation. For example, in a defensive situation where there is little vehicular movement, there may be little or no class III supply maintained in the combat trains.

b. *Tactical Employment.*

(1) *Dismounted attack.* (See fig 2-4.) Combat trains support initially from a location to the rear of the line of departure. Upon seizure of the objective, or intermediate objective if one has been designated, the combat trains will displace forward to a position to the rear of the objective. Since the objective of a dismounted attack is relatively shallow, there will seldom be a requirement for class III resupply. Class V resupply will be accomplished by supply point or unit distribution, depending on the tactical situation and the terrain. The maintenance contact team(s) will go forward and repair disabled vehicles on site or, if repair on site is not feasible, evacuate the disabled vehicle to the combat or field trains as appropriate, for repair. The ambulances of the medical platoon travel as far forward as feasible to collect casualties for evacuation to the aid station.

(2) *Mounted attack.* In mounted attacks against shallow objectives, the procedures described for a dismounted attack apply. In mounted operations where the battalion moves rapidly over extended distances and remains in its carriers most of the time, the combat trains move with the battalion (fig. 2-5). When the battalion encounters enemy resistance in sufficient strength to force deployment, the combat trains disperse and seek cover and concealment. The requirement for logistical support operations while actually on the move is limited; the main exception to this is the

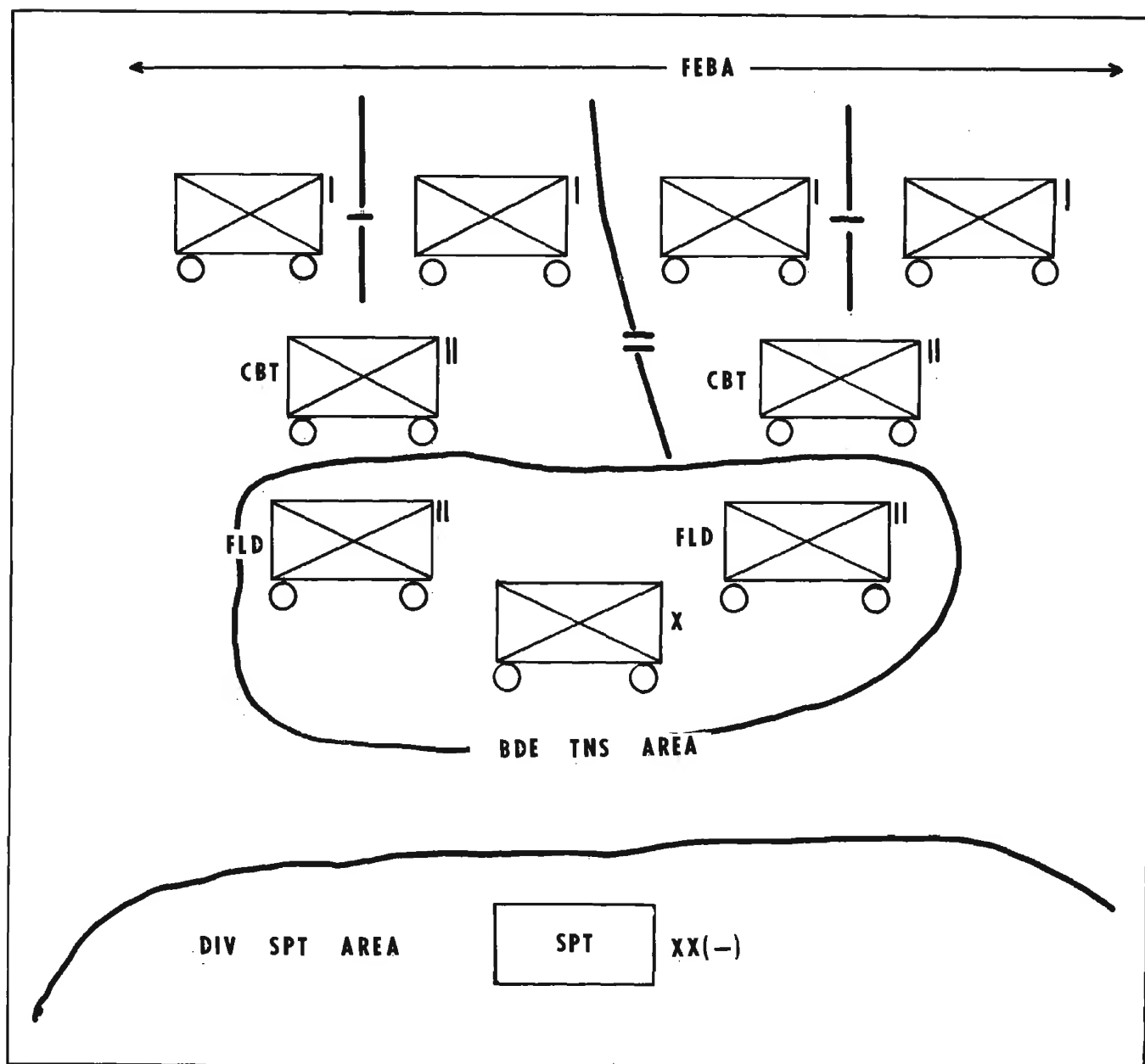


Figure 2-8. Relative location of units' trains and division support areas.

maintenance of wheeled and tracked vehicles as a result of mechanical failure or enemy action. Fuel and ammunition resupply seldom create significant problems in this type of operation. When the battalion objective or an intermediate objective is seized, fuel resupply vehicles are sent forward to refuel vehicles to permit the attack to continue. Ammunition consumption is normally low when movement is rapid unless the battalion has been forced to deploy on several occasions. In such instances, ammunition resupply may be accomplished by ammunition vehicles moving forward to the companies when the battalion is deployed and the resistance eliminated. Ammunition is resupplied when the battalion reaches its final objec-

tive, as required. As fuel and ammunition stocks in the combat trains are consumed, the S4 directs the support platoon leader in the field trains to send replacement class III and V resupply vehicles forward. For additional guidance concerning combat service support for tank or infantry-heavy mechanized infantry battalions in the mounted attack, see FM 17-1.

(3) *Defense.* (See fig 2-6.) The battalion combat trains will normally be located between 11½ to 21½ kilometers to the rear of the FEBA, depending on the nature of the terrain, location of the reserve, and the available road net. Class III supplies and maintenance requirements are less in the defense than in the attack. Expenditures of

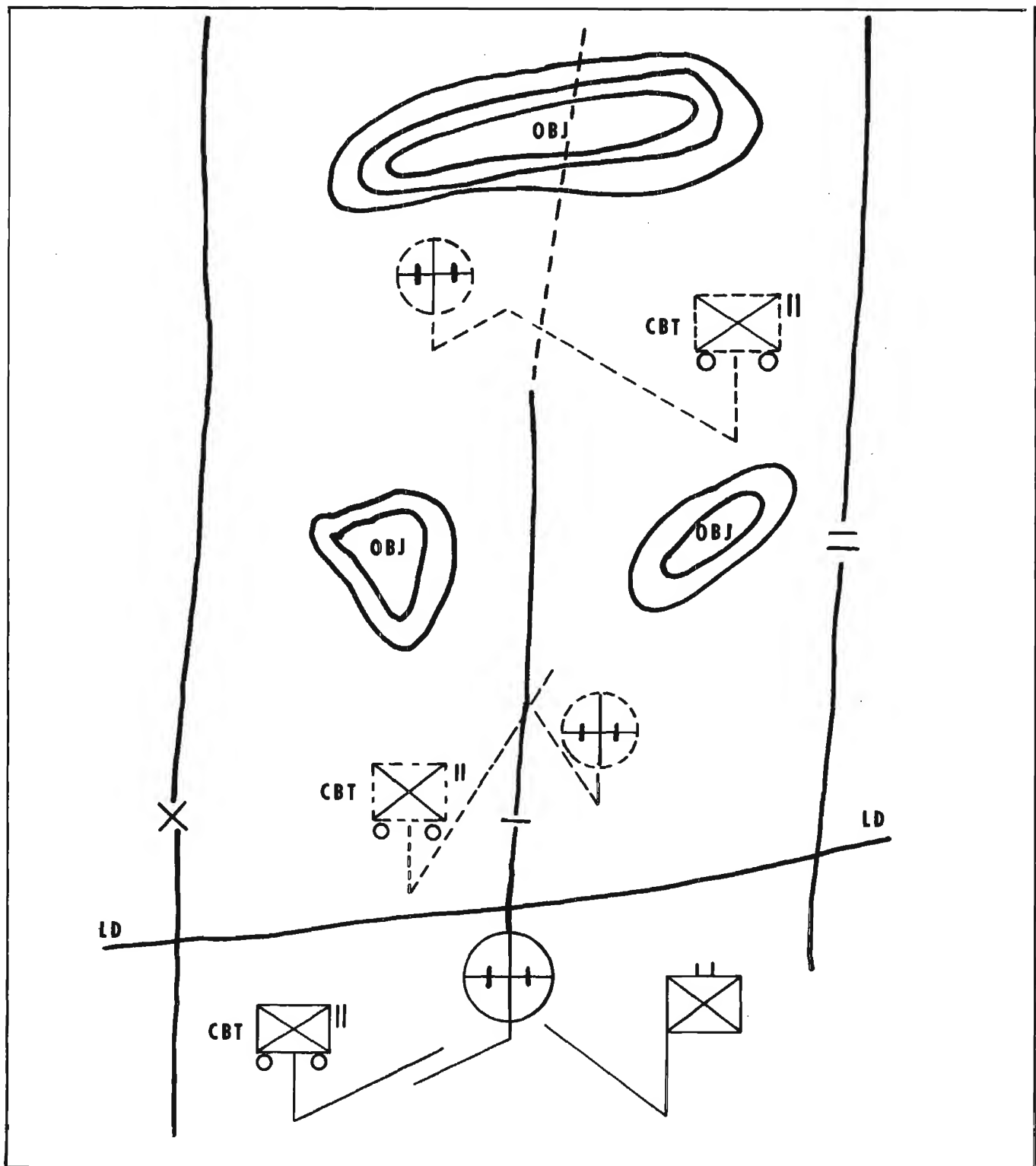


Figure 2-4. Employment of combat trains in the dismounted attack.

class V normally are higher than the attack. The logistic support required by a mechanized infantry battalion is significantly greater than the other types of infantry battalion.

2-23. Battalion Field Trains

a. *Composition.* Generally, field trains consist of those elements not in the combat trains. Specifically, they include the remaining class III and V

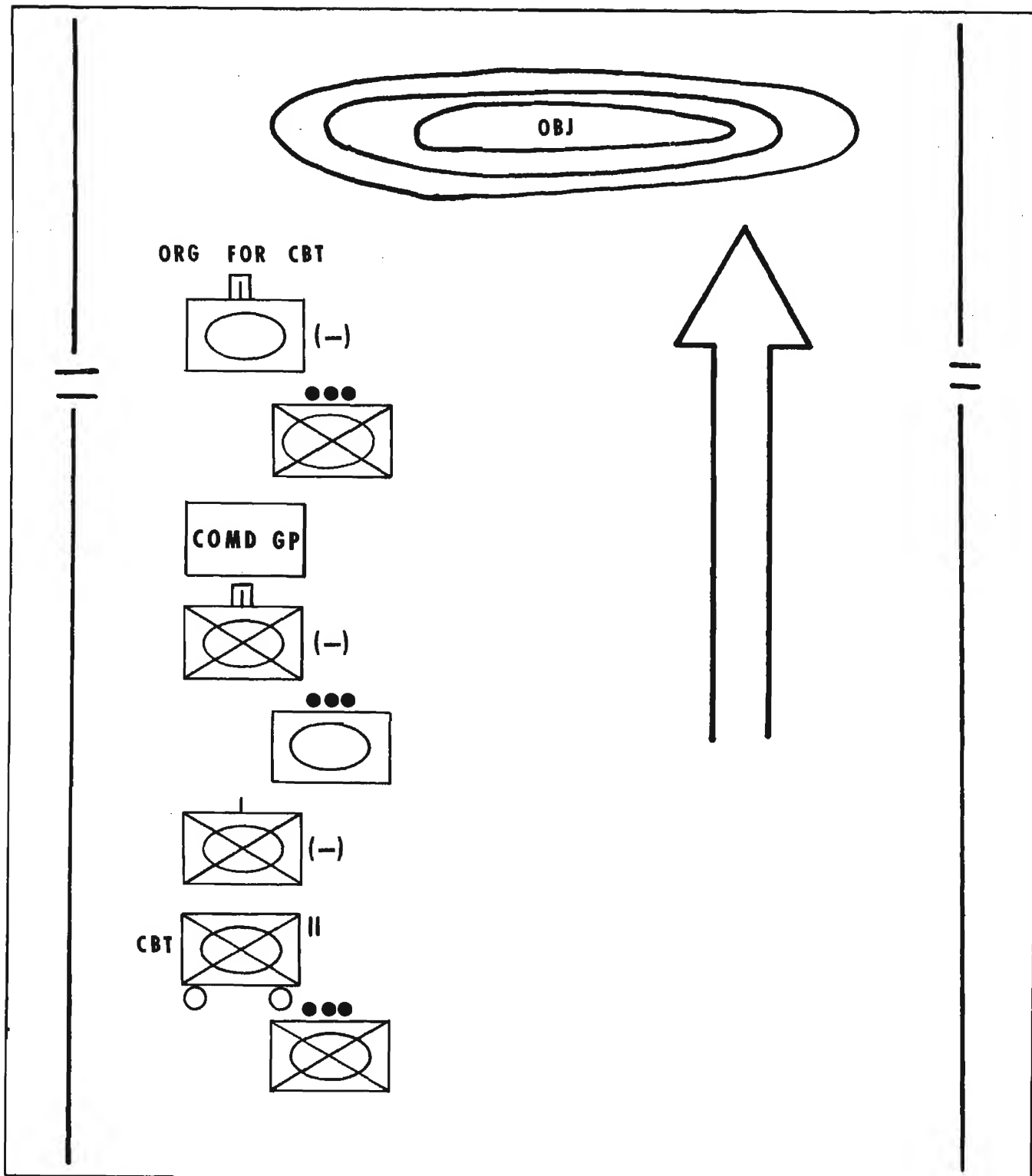


Figure 2-5. Employment of the combat trains in the mounted attack.

supply vehicles of the support platoon's transportation section, the remaining elements of the maintenance platoon, the support platoon headquarters, supply section, and mess section. The installation depicted in figure 2-7 represents activities required in the battalion field trains for

efficient operation and adequate backup support for the battalion combat trains. The class V distribution point, operated by the transportation section of the support platoon, is located away from the maintenance area and the class III distribution point to preclude traffic congestion and to

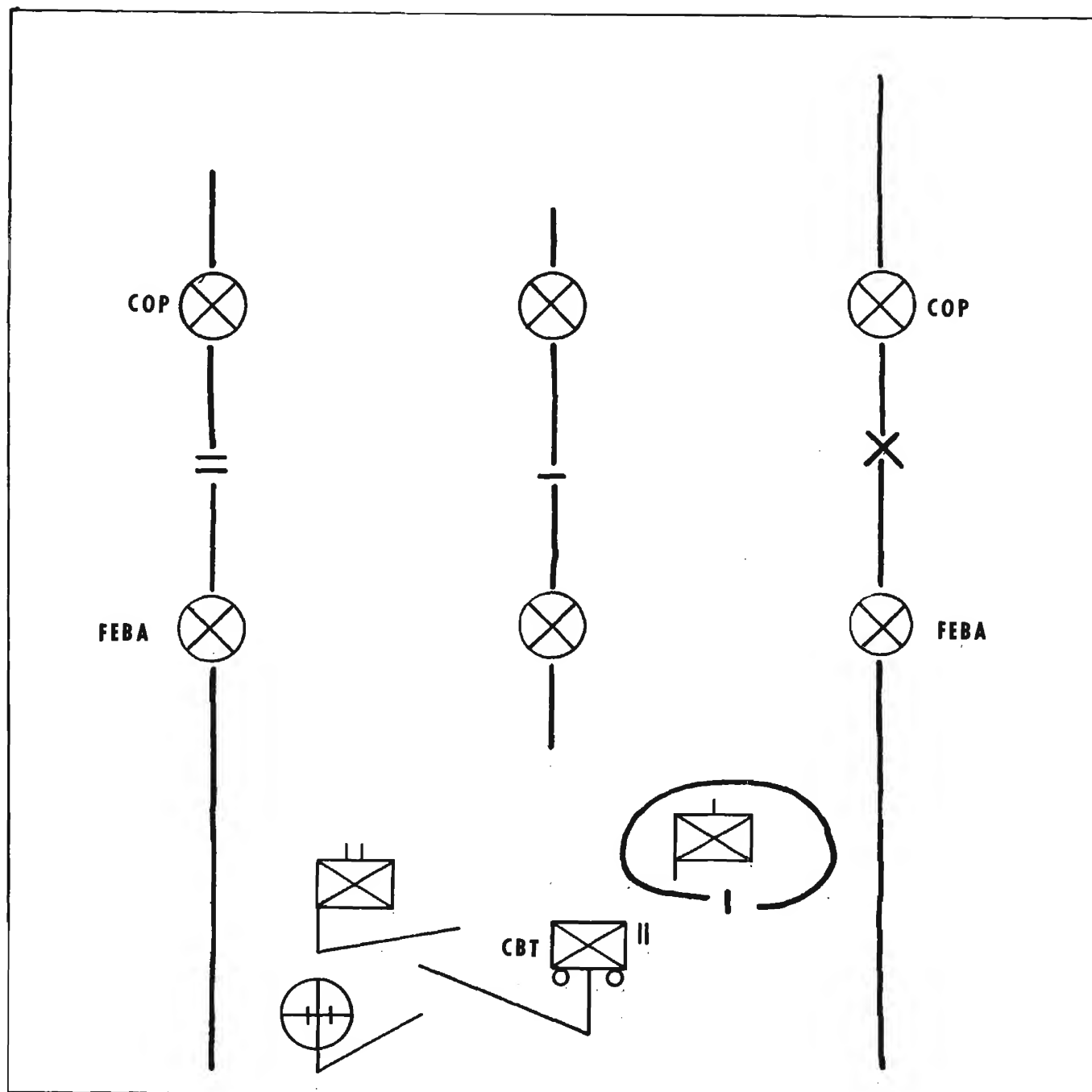


Figure 2-6. Employment of combat trains in the defense.

enhance safety. The support platoon CP is normally located near the entrance to the field trains area to serve as a logistics information center. It is manned and operated by personnel of the supply section. The salvage collecting point should be located close to the support platoon CP. The kitchen area is positioned away from the main road to avoid contaminating food with dust and dirt caused by traffic. Additionally, it is desirable to locate it near a separate road to facilitate delivery of rations by division and pickup by the companies when supply point distribution is employed. A

class I distribution point is not required when the mess section operates a centralized cooking facility in the field trains; however, when the mess section is divided into company teams for operations in company areas, a class I distributing point is required to break the rations down into company lots. The maintenance area motor park and class III distribution point are located adjacent to each other to facilitate the operation of the maintenance platoon. The exact location of the class III distribution point should facilitate the flow of traffic through the trains area.

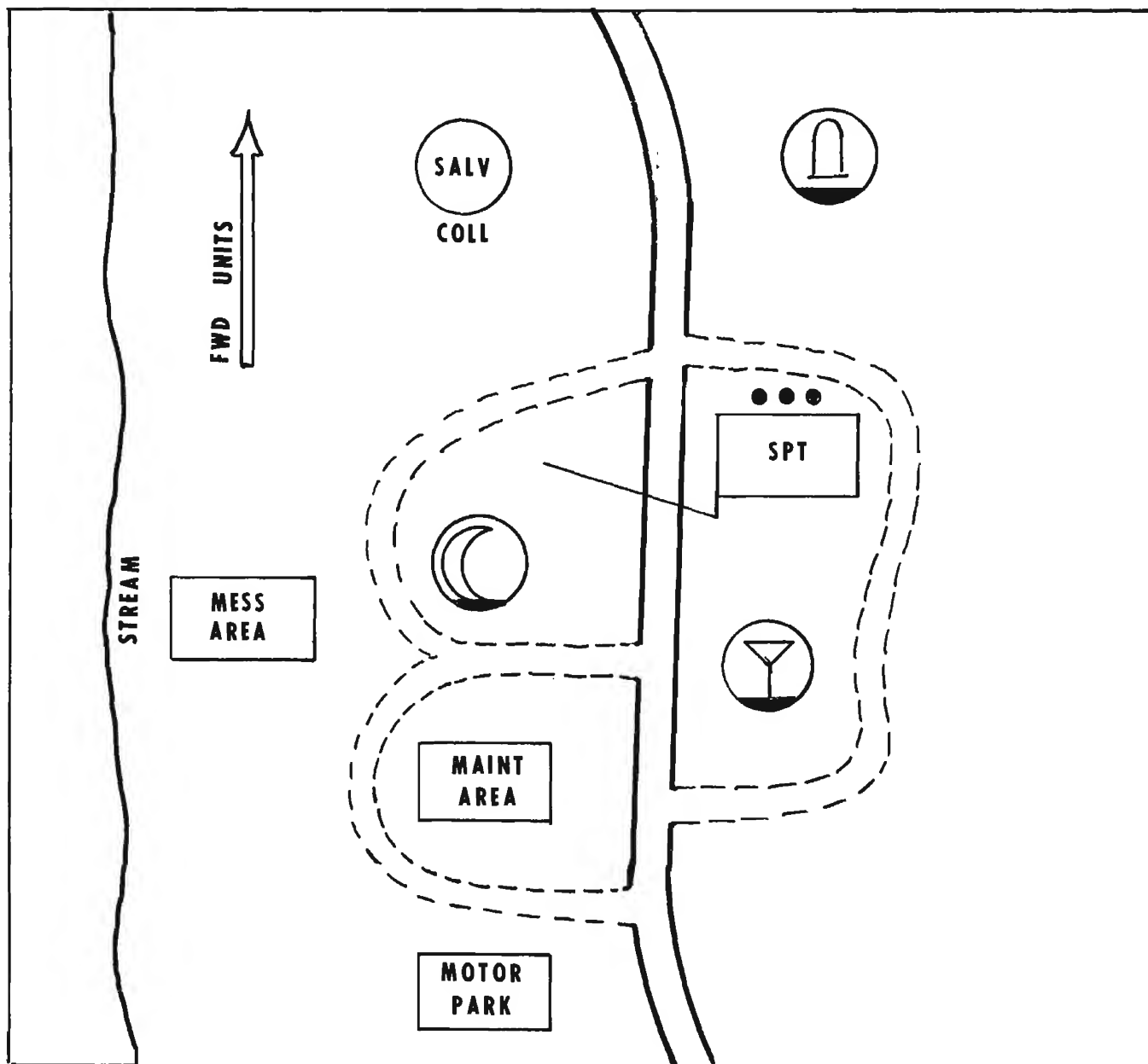


Figure 2-7. Interior organization of the battalion field trains.

b. Function. The field trains are the focal point of logistical activity in the battalion since it is in the field trains that supply requests are prepared, action is taken to physically obtain supplies, mess operations are conducted, and the majority of organizational vehicular maintenance is performed. It is from the field trains that supplies are sent

forward and organizational maintenance support emanates.

c. Location. Usually, the field trains are located in the brigade trains area. Occasionally, however, the battalion commander may want his field trains closer and may employ them independently of the brigade trains.

Section V. ORGANIZATION FOR COMBAT

2-24. Methods

a. The organization for combat is dictated by the battalion's mission, enemy situation, troops

available to include current disposition, terrain and weather, and maneuver space. The organization for combat is modified during the course of operations as required.

b. The battalion commander and his staff develop SOP and operational techniques to permit changes in the task organization to be made expeditiously and efficiently.

c. Terms used in organization for combat include the following—

(1) *Attachment*. Attached units are assigned temporarily to a command other than their parent unit. When one unit is attached to another, the commander of the unit to which the attachment is made commands the attached unit. Subject to the limitations imposed by the attachment order, this includes full responsibility for combat service support, discipline, training, and operations. Attachment represents the firmest control of a supporting unit by a supported commander, but may impose an administrative or logistical burden on the unit to which the attachment is made. Generally, attachment is preferred when the commander designating this role is unable to otherwise provide effective control and combat service support.

(2) *Support*. Support is the action of an element/unit which aids, protects, complements, or sustains any other element/unit in accordance with a directive requiring such support. For application to field artillery (direct support, reinforcing, general support reinforcing, and general support), see FM 6-20-1 and for air defense artillery, see FM 44-1. Support makes the element/unit generally available, but does not limit the application of its resources strictly to a single force except in the case of direct support for fire support elements. The supporting role is preferred when effective control can be exercised by the commander assigning the mission. A supporting unit assists another unit, but does not act under the orders of the commander of the supported unit.

(a) Direct support is a mission or task requiring one unit, under command of its parent headquarters, to support another specific unit. The supporting unit is required to answer directly to the supported unit's request for support.

(b) Units in general support remain under their assigned commander, and they provide support to a force as a whole and not to any particular element of the supported force.

(3) *Operational control*. Units under operational control are placed under a commander for assignment of tasks and authoritative direction to accomplish the mission. Operational control does not include responsibility or authority for combat service support, discipline, internal organization, or unit training except when a subordinate com-

mander requests assistance in these areas. Operational control provides a relationship where full use of the supporting element/unit is devoted to the supported element/unit without the additional burden of combat service support requirements being placed on the support element/unit. Operational control is preferred when outside resources are available for combat service support and effective control can be maintained by the supported unit.

(4) *Battalion task force*. A task force is a temporary grouping of units under one commander, formed for the purpose of carrying out a specific operation or mission; or a semipermanent organization of units under one commander for the purpose of carrying out a continuing, specific task. Units, regardless of attachments, may be designated as task forces whenever they are on a semi-independent mission. A battalion-size unit of the combat arms is called a task force when it has one or more company-size units (from another combat arm or from a combat support unit) attached. For example, a mechanized infantry battalion which retains at least one of its organic companies is a battalion task force when it is augmented by a tank company, or an engineer company, or an artillery battery.

(5) *Company teams*. A combined-arms force formed by the attachment of one or more tank platoons to a rifle company, or the attachment of one or more rifle platoons to a tank company, is called a company team.

(6) *Reinforcement*. Reinforcement is the attachment of like units to a force, such as a rifle company to an infantry battalion or a rifle platoon to a rifle company. Reinforcement also includes attachments of combat units to a force from two echelons below the receiving units, such as a tank platoon to an infantry battalion or a rifle squad to a tank company.

d. Two methods are used in organizing forces for combat. They may be organized as pure forces or as combined-arms forces. Pure forces are composed entirely of like elements, e.g., an infantry company without different combat arms attachments. Combined-arms forces may be organized as balanced, infantry-heavy, or tank-heavy.

(1) *Balanced forces/teams*. Task forces or teams consisting of a generally equal number of tank and infantry elements may be organized when the enemy situation is too vague to determine the need for tank- or infantry-heavy forces. This organization permits rapid commitment of forces capable of performing either tank or infantry missions.

(2) *Infantry-heavy forces/teams.*

(a) *Dismounted operations.* Task forces or teams are organized infantry-heavy for operations requiring primarily dismounted attacks. Such attacks are required against an organized defensive position or where an obstacle must be breached, against strong antitank defenses, when a built-up area must be seized, or when terrain is unfavorable for employment of substantial numbers of armored vehicles. In such operations, the employment of tanks is normally restricted to the support of the advance of the infantry.

(b) *Mounted operations.* For employment in mounted operations, mechanized infantry or infantry mounted on wheeled vehicles may also be organized as infantry-heavy task forces or teams. Tanks are employed primarily to lead the attack and are supported by infantry.

(3) *Tank-heavy forces/teams.* Tank-heavy forces or teams are organized primarily for operations that require mounted attacks, with tanks leading and supported by infantry. They are used best where terrain is suitable for tank employment; however, tanks may be employed in most terrain within limitations. Such task forces or teams are best employed against light, disorganized, or discontinuous resistance such as in the exploitation and pursuit; where the enemy is strong in armor; or when great shock, effect, and speed are desired. Tank-heavy forces may also be appropriate for the enveloping force in an envelopment or as the reserve committed through a gap to seize an objective, and are well suited to the conduct of the mobile defense, the counterattack, and reconnaissance and security mission.

CHAPTER 3

COMBAT, COMBAT SUPPORT, AND COMBAT SERVICE SUPPORT

Section I. INTRODUCTION

3-1. General

a. The battalion's *combat* elements are distinguished by their ability to employ fire and maneuver to close with the enemy. Their mission may be to destroy or capture the enemy, secure or deny terrain, protect the battalion or a larger force, or gain information. The combat elements are organized, equipped, and trained to operate in direct contact with the enemy and use direct and indirect fires to accomplish their mission. Since the combat elements take the greatest risks and endure the greatest hardships, they require the highest order of leadership, training, discipline, endurance, and *esprit de corps*. The combat elements of the infantry battalion are the rifle companies and the reconnaissance or scout platoon.

b. The battalion's *combat support* elements provide the commander a major source of combat power. The battalion's combat support elements are the combat support company and/or the mortar, antitank, and communications platoons, and the ground surveillance and Redeye air de-

fense sections when employed independently. Some elements, such as the mortar platoon, have the sole mission of providing combat support while others, such as the communications platoon which provides signal maintenance, may provide combat service support as well as combat support.

c. The battalion's *combat service support* elements perform selected functions in the areas of administration, maintenance, medical care, and logistical services. The battalion's combat service support elements are the support/service, maintenance, and medical platoons and elements of the battalion staff sections. Some combat service support elements may also perform combat support, such as the support platoon when providing transportation.

d. Nonorganic combat, combat support, and combat service support units/elements may be attached, placed under operational control, or otherwise provide support to the battalion when required.

Section II. COMBAT ELEMENTS

3-2. Organic Combat Elements

a. *Rifle Companies*. The rifle companies organic to the infantry battalion are the principal maneuver combat elements. For detailed discussion of doctrine, organization, and equipment of the rifle company, see paragraph 2-4 and appendix B; FM 7-11; and appropriate TOE.

b. *Reconnaissance or Scout Platoon*. This platoon is called a *reconnaissance* platoon in the infantry, airborne infantry, airmobile infantry, and light infantry battalion; it is called a *scout* platoon in the mechanized infantry battalion. For convenience of discussion, it is referred to as a reconnaissance platoon throughout this manual.

(1) The reconnaissance platoon of the infantry battalion conducts reconnaissance and se-

curity missions for the battalion. It has a limited capability for offensive, defensive, and retrograde actions.

(2) The platoon normally operates under the staff supervision of the S2 for reconnaissance missions and the S3 for all other missions to include security.

(3) For a discussion of doctrine, organization, and equipment of the reconnaissance platoon, see appendixes B and C and appropriate TOE.

3-3. Nonorganic Combat Elements

a. *Tank Units*. The mission of tank units is to close with and destroy enemy forces, using fire, maneuver, and shock effect. Tank units can participate in all types of operations and all forms of

maneuver and normally operate in coordination with other arms. Tanks are capable of maneuvering under fire, destroying enemy armor, exploiting breakthroughs and effects of mass-destruction weapons, providing nonnuclear fire support, supporting infantry-type battalions, and conducting combat operations under limited-visibility conditions. Tank units can operate in all types of weather and terrain; however, their maneuverability is considerably restricted in jungles, forests, and mountains. Tank unit vehicles and equipment provide excellent cross-country ground mobility.

b. Cavalry Units. Cavalry units are organized to perform reconnaissance missions and to provide security for the unit to which assigned or attached. They are able to engage in offensive, defensive, or retrograde actions in an economy of force role. They may function as maneuver units in stability operations.

(1) *Armored cavalry.* In performing their

basic missions, armored cavalry units reconnoiter, provide security for larger units, act as part of a reserve, maintain contact with the enemy or between friendly forces, defend, delay, conduct raids or make harassing or diversionary attacks. Because of its varied capabilities, armored cavalry is an important information gathering means. An armored cavalry squadron is organic to the infantry, mechanized, and airborne division. Separate infantry brigades have an organic cavalry troop.

(2) *Air cavalry.* The airmobility of air cavalry units greatly extends and improves their reconnaissance, security, and economy-of-force capabilities and permits the rapid transport of lightly armed elements with little regard for terrain restrictions. An air cavalry squadron is organic to the airmobile division. The infantry, mechanized, and airborne divisions have an air cavalry troop organic to the armored cavalry squadron.

Section III. COMBAT SUPPORT ELEMENTS

3-4. Organic Combat Support Elements

a. Heavy Mortar or Mortar Platoon. This platoon is called a *heavy mortar* platoon in the infantry and mechanized infantry battalions; it is called a *mortar* platoon in the airborne infantry, airmobile infantry, and light infantry battalions. For convenience of discussion, it is referred to as a mortar platoon throughout this manual.

(1) The battalion mortar platoon can provide a heavy volume of accurate and sustained fire on a close and continuous basis. The platoon may be employed to neutralize or destroy area or point targets, to screen large areas with smoke for sustained periods, to provide illumination, or when equipped with heavy mortars to attack targets with chemical fires. It is capable of firing from concealed and covered positions and engaging targets in defilade.

(2) The mortar platoon normally is employed in general support and positioned where its squads can best support the main attack (in the offense) or cover the most probable enemy avenue of approach (in the defense). Direct support and attachment are the least desirable methods of employing the mortar platoon and are used infrequently in defensive operations. During airborne or airmobile operations, control of the mortar squads may be decentralized during the early stages of the assault. Centralized control is established as soon as possible.

(3) Priority of fires is usually given to the main attack or to the company positioned on the

most probable avenue of approach. Mortar fires are planned and integrated with those of the supporting artillery. Forward observer (FO) teams are normally allocated to each rifle company. In the defense, mortar and field artillery FO teams normally accompany combat outpost (COP) forces, as do artillery FO teams.

(4) In the mechanized infantry battalion, the mortars are normally fired from mechanized infantry vehicles; however, infrequently they are fired from ground positions. On-carrier firing permits rapid displacement and minimum reaction time in moving situations. In the infantry, airborne, airmobile, and light infantry battalions, displacement and reaction time are normally greater in moving situations since cross-country mobility is limited (unless Army aviation is used for displacement).

(5) For a detailed discussion of the organization and employment of the battalion mortar platoons, see appendix E; FM 23-92; and appropriate TOE.

b. Antitank Platoon.

(1) The primary mission of the antitank platoon is to provide assault-antitank fire support for the battalion. Its secondary mission is to provide other forms of fire support.

(2) Depending on the situation, the elements of the platoon may be employed in general support, direct support, or an attached role. The platoon's mobility and communications enable it, or ele-

ments of it, to respond readily to tank threats throughout the battalion area.

(3) The platoon's primary target is enemy armor. Lacking such targets, it may engage bunkers, observation posts, vehicles, crew-served weapons, and similar targets in an assault fire role, provided this does not interfere with accomplishment of its antitank role.

(4) For a detailed discussion of the organization and employment of the antitank platoon, see appendix D; FM 23-6; and appropriate TOE.

c. Communications Platoon.

(1) The communications platoon installs, operates, and maintains communications facilities within the battalion headquarters. In addition, the platoon establishes or arranges for and maintains communications to the rifle companies, combat support company (when appropriate), and other elements of the battalion, and to attached, supporting, and adjacent units. Additionally, the platoon receives and processes communications from higher and adjacent headquarters.

(2) The principal functions of the platoon include wire and radio communication, message center service, and signal equipment maintenance.

(3) The communications platoon leader also serves as the battalion special staff officer on communications matters.

(4) For a detailed discussion of the organization and employment of the communications platoon, see appendix F and appropriate TOE.

d. Ground Surveillance Section.

(1) The mission of the ground surveillance section is to provide ground radar surveillance for the infantry battalions.

(2) The section is capable of performing a wide variety of tactical functions in support of the battalion's mission; it may participate in offense, defense, retrograde, or other tactical operations by monitoring point targets, searching enemy positions and possible avenues of approach, and assisting in control of units during periods of reduced visibility.

(3) The ground surveillance section is commanded by the section sergeant who is responsible for the section's training, control, tactical employment, and supply. He recommends methods of employment of the section to the battalion S2 who exercises staff supervision over the section.

(4) For a detailed discussion of the organization and employment of the ground surveillance section, see appendix I and appropriate TOE.

e. Redeye Section.

(1) The mission of the Redeye section is to provide defense against low-flying enemy aircraft.

(2) The air defense section may be employed in general support of the battalion or in direct support of specific subordinate elements, or in a combination of the two methods.

(3) The air defense section is commanded by the section leader, who is responsible for the training, tactical employment, and supply of the section. The section leader serves as a battalion special staff officer (air defense officer).

(4) For a detailed discussion of the organization and employment of the air defense section, see appendix J.

3-5. Nonorganic Combat Support Elements

a. Field Artillery.

(1) Field artillery provides combat support to the infantry battalions by delivery of fires of appropriate type, caliber, and density under all conditions of weather, visibility, and terrain. Artillery also provides target acquisition support through the use of forward observers, radar, and the target acquisition platoon organic to the direct support artillery battalion.

(2) Artillery organic to the armored, infantry, and mechanized divisions is capable of delivering nuclear, chemical, and conventional fires. Airborne and airmobile division artillery does not possess an organic nuclear capability, has only a limited chemical capability, and lacks organic medium and heavy field artillery capability.

(3) The division artillery of the airmobile division includes an aerial artillery battalion. This battalion is highly mobile and can deliver responsive fires from the air in support of maneuver elements. Aerial artillery can be employed to reinforce a direct support artillery unit; however, it is normally employed in a general support or general support reinforcing role.

(4) See FM 6-20-1, FM 6-20-2, and FM 6-140 for details of artillery employment.

b. Air Defense Artillery.

(1) Air defense of the field army area is provided by the field army air defense commander through the field army air defense organization. (This organization usually consists of an air defense artillery (ADA) brigade of two or more ADA groups at field army and an ADA group attached to each group and/or corps air defense units.) However, the air defense capability of non-air defense weapons should not be overlooked when planning for air defense.

(2) Air defense of the division area is provided by organic, attached, or supporting air defense artillery organizations, Redeye air defense weapons, and individual and crew-served automatic weapons.

(3) The division air defense artillery normally provides low altitude air defense to combat, combat support, and combat service support areas, installations, and units in the division area. However, in the absence of an air threat, the mobility and firepower of air defense artillery automatic weapons may be exploited by assigning them a mission of ground fire support.

(4) See FM 44-1 and FM 44-3 for doctrine on employment of air defense artillery.

c. Signal.

(1) The forward communications company of the division signal battalion and signal platoon of the separate infantry brigades establish signal centers in the forward areas. These signal centers provide message center, motor messenger, cryptographic, teletype, telephone, and radio service, excluding internal radio nets. A signal center is normally located in the area of the brigade trains. Basically, these forward signal centers afford access to the division and/or higher headquarters communications system for all units being supported; for example, brigade trains and the field trains of the maneuver battalions when in the brigade trains area. See FM 7-30 for a discussion of signal support provided infantry battalions organic or attached to a separate infantry brigade.

(2) Multichannel communications links (radio relay and/or cable) connect the signal center with brigade headquarters and provide access for the battalions, via brigade, to the division or next higher headquarters' system. See FM 11-50 and FM 11-57 for information on the signal battalion.

d. Engineer.

(1) *General.* An engineer company normally is placed in direct support of, or attached to, a committed brigade. Elements of the company may perform engineer work in a battalion area on a task basis, or elements of the company may be placed in support of, or attached to, a committed battalion for a specific mission.

(2) Employment.

(a) In the defense, engineers support and assist the infantry battalion in planning and constructing obstacles (e.g., wire entanglements and mine fields) and camouflage (see FM 5-20), and they perform other engineering tasks such as preparing and maintaining routes to include routes for the movement of reserve elements in a coun-

terattack. In the offense, engineers have the mission of facilitating the forward movement of the battalion by clearing minefields, breaching obstacles and roadblocks, and clearing landing zones. Infantry units normally are required to perform much of the labor for these tasks with the engineers furnishing technical advice, assistance, and engineer equipment. Engineers normally perform tasks requiring special skills and/or equipment.

(b) Engineers are trained to fight as infantry in emergencies. However, since training time available does not permit emphasizing the detailed coordination required for offensive operations, they are best suited for defensive employment. Lack of organic combat support elements such as mortars and long-range antitank weapons requires that engineer units be augmented when they are committed to an infantry role. Frontages assigned to engineer units must be compatible with the firepower actually available to them.

(c) Normally, engineers operate a water supply point within each brigade area.

(3) *Control.* The senior engineer unit commander supporting the battalion acts as the unit engineer and advisor on engineer matters. He is responsible for coordinating the activities of all engineer units in support of, or attached to, the battalion.

(4) FM 5-135 and FM 5-136 contain details on engineer employment.

e. Army Aviation.

(1) Battalions organic or attached to the airborne and infantry division will receive aviation support from the division aviation battalion. Battalions organic or attached to the airmobile division receive this support from the division aviation group. The armored and mechanized division aircraft are primarily command-and-control aircraft except for the aircraft of the armored cavalry squadron. Additional aircraft support is provided by nondivisional aviation units when required and the brigade aviation section platoon.

(2) Army aviation in support of the battalion can provide:

(a) Command and control aircraft.

(b) Battlefield aerial reconnaissance and surveillance.

(c) Air movement of patients.

(d) Air movement of troops and materiel.

(e) Direct aerial fire support.

(f) Aerial radiological survey.

(3) In some operations, commanders can achieve better control and obtain more timely information by supervising operations from Army aircraft.

(4) FM 1-100, FM 1-105, FM 17-36, FM

30-20, and FM 57-35 contain details on Army aviation employment.

f. Chemical. Chemical units are provided by field army and may operate under division control. These units may be further attached or placed in support of the brigade or battalion. FM 3-50 contains details on the employment of smoke generator units.

g. Intelligence. The intelligence capabilities of the battalion are supplemented by intelligence agencies of the brigade and division. Detailed intelligence procedures are prescribed in FM 30-5.

(1) *Reconnaissance and surveillance.*

(a) *Ground reconnaissance.* The battalion has an organic ground reconnaissance and surveillance capability, and it can request additional support from its parent headquarters. Aggressive ground reconnaissance is a positive means of determining disposition and identification of enemy forces. The greater the dispersion on the battlefield, the greater the requirement for reconnaissance and the more readily patrols can penetrate to develop enemy positions and obtain information.

(b) *Air reconnaissance.* Air reconnaissance must be coordinated with ground reconnaissance. Requests from subordinate units for air reconnaissance missions are processed by the battalion S2 to the brigade. (See fig. 3-1.)

1. *Army aviation.* Army aviation supports and reinforces ground reconnaissance. These aircraft have the range, speed, and special sensory equipment to cover large areas rapidly. The capability to cover large areas rapidly permits ground elements to concentrate on areas of greatest intelligence productivity. Attached or supporting aerial surveillance units from corps or field army provide day and night aerial photography, near all-weather aerial radar and infrared imagery, and daylight visual reconnaissance. Brigade helicopters and supporting air cavalry units provide a visual observation capability. FM 1-100, FM 1-105, FM 17-36, FM 30-20, and FM 57-35 contain procedures for employment of Army aviation air reconnaissance and surveillance aircraft.

2. *Other services.* The capabilities of air reconnaissance elements of the Air Force, Navy, and Marine Corps complement those of Army aviation. The supporting Air Force tactical air control party and the Fleet Marine Force air/naval gunfire liaison company (ANGLICO) provide advice and detailed information concerning the employment of these reconnaissance resources.

(2) *Intelligence personnel.* Interrogation teams, counterintelligence (CI) teams, and tech-

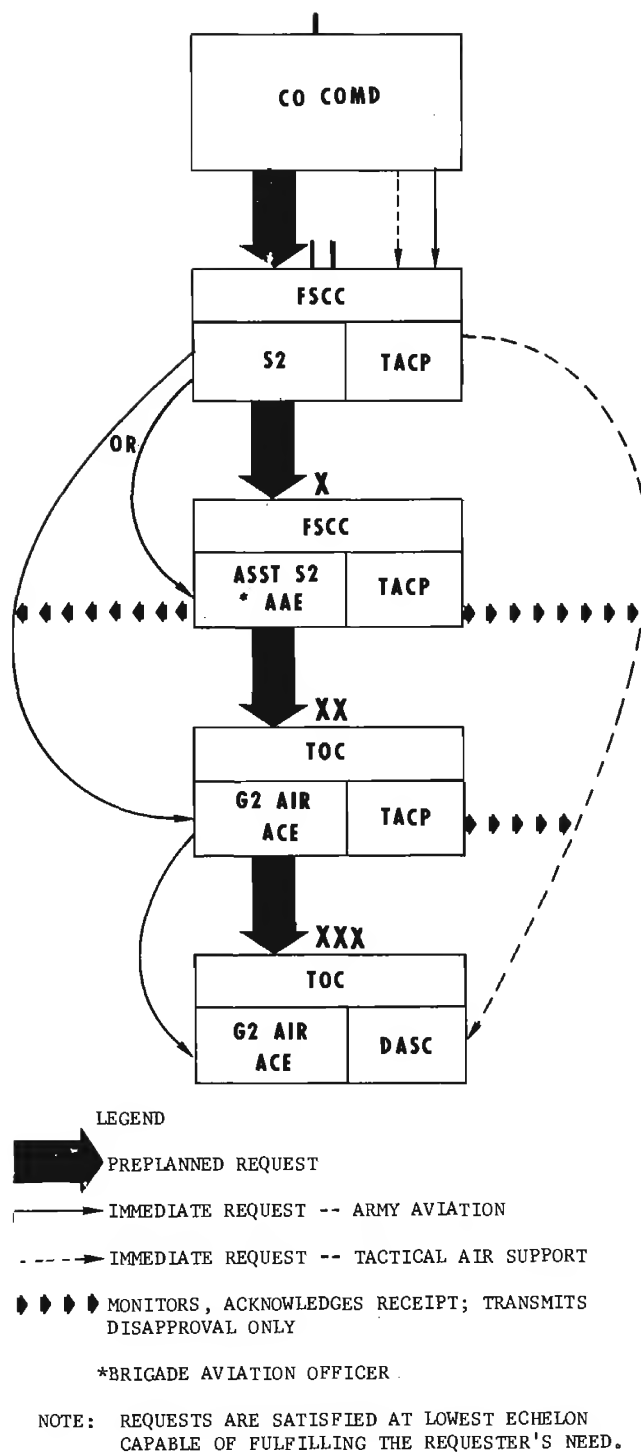


Figure 3-1. Air reconnaissance request channels.

nical and other types of intelligence teams may be attached to the battalion for special or independent operations or for support during normal operations.

(a) *Interrogation of prisoners.* See FM 30-5 and FM 30-15.

(b) *Counterintelligence.* Counterintelligence increases the security of the battalion and

aids in the achievement of surprise by denying information to the enemy through active and passive measures. The battalion S2 is usually designated as the counterintelligence officer. He may request additional counterintelligence support from or through brigade.

(c) *Intelligence support of tactical cover and deception operations.* Planning of tactical

cover and deception operations is primarily an S3 responsibility. The intelligence aspects of these operations, however, must be coordinated with the S2. Although planning and supervision of tactical cover and deception operations are normally accomplished or supported by division and higher echelons, the battalion plays a major role in executing the plans. For detailed discussion of cover and deception operations, see FM 31-40.

Section IV. COMBAT SERVICE SUPPORT ELEMENTS

3-6. Organic Combat Service Support Elements

a. *Support or Service Platoon.*

(1) The support platoon provides supply, transportation, and mess support for infantry, mechanized infantry, and airborne infantry battalions. In the airmobile infantry and light infantry battalions, the service platoon provides supply, transportation, and maintenance support; the mess section is separate.

(2) The support/service platoon leader is the S4's principal assistant in planning and implementing logistical support for the battalion. He commands the platoon and is responsible for the operation of the battalion field trains, which are usually located in the brigade trains area. He also serves as the battalion ammunition officer.

(3) For a detailed discussion of the organization and employment of the support/service platoon and battalion supply activities, see appendix H and appropriate TOE.

b. *Medical Platoon.*

(1) The medical platoon furnishes medical services to companies, to include provision of aidmen; patient collection, emergency treatment, and evacuation of patients; and supervision of sanitation for the battalion.

(2) The medical platoon leader is the battalion surgeon, the special staff officer concerned with medical matters.

(3) For a detailed discussion of the organization and employment of the medical platoon and battalion medical support, see appendix G and appropriate TOE.

c. *Maintenance Platoon.*

(1) The maintenance platoon in the infantry, airborne infantry, and mechanized infantry battalions performs organizational maintenance on battalion vehicles and selected equipment. The maintenance section of the service platoon performs these functions in the airmobile infantry and light infantry battalions.

(2) The battalion motor officer supervises the operation of the maintenance platoon aided by the automotive maintenance technician (warrant officer). See appendix H and appropriate TOE.

3-7. Nonorganic Combat Service Support Elements

a. *Division Support Command/Separate Brigade Support Battalion.* Division/separate brigade units operating in the brigade trains provide—

- (1) A medical clearing station.
- (2) Forward supply distributing points.
- (3) Bath services (to include personnel decontamination when required).
- (4) Graves registration.
- (5) Direct support maintenance of vehicles, weapons, and communications equipment (but not cryptographic equipment).
- (6) A forward salvage and maintenance collecting point.
- (7) Clothing exchange (when augmented).

b. *Organization and Operation.* FM 54-2 contains information concerning the organization and operation of the division support command.

Section V. FIRE SUPPORT (NATO STANAG/CENTO STANAG 2099)

3-8. General

a. Firepower is the principal element of the battalion's combat power. It is composed of all fires under the direct control of the commander as well as supporting fires available.

b. The battalion commander is responsible for the employment of available firepower and for integrating the fire support plan with the scheme of maneuver.

c. The most flexible and responsive fire support

available to the battalion is provided by organic mortars and by the artillery battalion normally in direct support of each committed brigade. These fires are augmented by other divisional/corps field artillery and air defense artillery units, tactical air, attack helicopters, naval gunfire, and other available fire support means.

d. Supporting fires are used to neutralize or destroy targets most likely to hinder accomplishment of the mission. They provide a powerful means to rapidly influence the course of battle and add depth to or isolate the battlefield. The types of fires include nuclear and nonnuclear. (The nonnuclear fires include chemical fires as well as conventional high explosive and incendiary fires.)

e. For discussion of integration of nuclear and nonnuclear fires, special nuclear considerations, selection of nuclear weapons, and chemical and biological fires, see FM 7-30. See FM 6-20-1, FM 6-20-2, and FM 100-5 for further discussion of fire support.

f. Fire support terminology includes—

(1) *Fire support (supporting fire)*—fire delivered by supporting units to assist and protect a unit in combat. Supporting fire is delivered by artillery, mortars, naval gunfire, and aircraft.

(2) *Fire support plan*—the coordinated and integrated plan for the employment of all fire support available to the commander. For the battalion, this includes the commander's plan for employment of organic mortars, supporting field artillery, air defense weapons used in a ground fire support role, aerial field artillery fires, close air support, naval gunfire, and chemical fires available or requested to support the operation. The plan also includes the direct fire of tanks and antitank weapons when they are used for the planned destruction of fixed, predetermined targets or when they have planned zones of responsibility.

(3) *Fire plan*—a detailed plan for the employment of specific weapons or type weapons, be they organic, attached, or in support of a unit (e.g., artillery fire plan, nuclear fire plan, air fire plan, antitank fire plan, and mortar fire plan) to insure all fires are coordinated.

(4) *Target*—personnel, materiel, or appropriate terrain that warrants or may warrant engagement by fire. The target will be designated and numbered for future reference.

(5) *Planned fires*—fires planned on areas or points where the supported commander anticipates he will require fire support to accomplish his mission. These fires may be scheduled or on-call.

(a) *Scheduled target*—a target on which fire is to be delivered at a specific time during an

operation by the supported force. The time normally is specified in terms of minutes before or after H-hour or in terms of accomplishment of a predetermined movement or task.

(b) *On-call target*—a planned target, other than a scheduled target, for which a need can be anticipated. On-call targets may be nuclear or nonnuclear and consist of planned delivery, when requested, on a designated location. Complete firing data will be prepared in advance.

(c) *Group of targets*—two or more targets desired to be fired on simultaneously.

(d) *Series of targets*—a number of targets and/or groups of targets, usually fired on a timetable basis and planned to support a maneuver phase such as the fires planned on an objective just before the final assault.

(6) *Target of opportunity*—a target which has not been scheduled, appears during combat, and can be reached by supporting fires. It is generally fleeting in nature and must be engaged as soon as possible.

(7) *Special ammunition allocation*—the apportionment of specific numbers and types of special weapons to a commander for a stated time period as a planning factor for use in the development of plans. Expenditure of weapons is not authorized until released by proper authority.

(8) *Special ammunition load*—the specific quantity of special ammunition to be carried by a delivery unit. The establishment and replenishment of the load after each expenditure is a command responsibility dependent on the mission, the tactical and logistical situation, and the capability of the unit to transport and utilize the load. The load may vary from day to day and among similar delivery units.

(9) *Harassment and interdiction fires.*

(a) Harassing fires are planned on known and suspected enemy locations and are designed to disturb the rest of the enemy, curtail movement, and lower the morale of enemy troops by the threat of casualties or losses in materiel.

(b) Interdiction fires are planned to deny the enemy the unrestricted use of areas, routes, or points.

(10) *Field artillery final protective fires*—an immediately available prearranged barrier of artillery fire, integrated into the infantry FPF, and designed to protect friendly troops or installations by impeding enemy movement across defensive lines or areas.

g. *Fire control measures include—*

(1) *Boundaries.* In addition to their use in delineating areas of responsibility, boundaries

control maneuver and serve as a measure for coordinating fire support. When fires employed by one force will affect the zone of an adjacent unit, these fires are coordinated with the adjacent force. Units engage targets outside their boundaries without coordination with the adjacent force only when the effects of fires placed on the target will be beyond the adjacent unit's no-fire line.

(2) *No-fire line (NFL)*. The NFL is a line short of which fire support means cannot fire without prior clearance from the commander that established this line. (In general, fires beyond the NFL can be delivered without danger to friendly personnel.) Normally, the commander of the artillery battalion in direct support of a brigade, in coordination with the brigade commander and the infantry battalion commanders, establishes the NFL. Division artillery coordinates all NFL and distributes appropriate information to subordinate units, reinforcing artillery, and corps artillery headquarters. The artillery unit establishing the NFL may fire short of the line in its own sector. Other supporting artillery and naval gunfire elements must obtain prior clearance from the artillery which established the line prior to firing short of it.

(3) *Fire support coordination line (FSCL)*. The FSCL is a line established by the ground commander to insure coordination of all fires not under his direct control which may affect the command's current tactical operation. The FSCL is established usually by the corps commander a short distance beyond the area into which it is intended to send patrols or penetration forces or to maintain covering forces. Whenever possible, the FSCL follows well-defined terrain features so it can be easily recognized from both the air and ground. The FSCL is not normally required for units lower than corps since the NFL and boundaries will provide adequate control measures at lower levels; however, in stability operations, it may be required for units as small as a company. The FSCL is normally coordinated with the appropriate tactical air commander.

(4) *Fire coordination line (FCL)*. An FCL is a line between forces beyond which all types of fire may not be delivered without coordination with the affected force. It is normally used to coordinate fires between two converging forces, such as airborne forces and linkup forces. Fires with effects extending across the line must be cleared with the headquarters of the force on the other side of the line before firing. The FCL is established by the headquarters which controls both forces and should follow easily identifiable terrain features. A boundary is an implied FCL.

(5) *Free fire area*. A free fire area is specifically designated as an area into which fire may be placed without any coordination between the force requesting or delivering the fires and the agency establishing the free fire area. This fire control measure is used primarily during stability operations, and it is established by a higher headquarters. It may require approval by the host country.

3-9. Fire Support Coordination

a. The battalion commander is responsible for coordinating all supporting fires. He gives personal attention to the planning, coordination, and employment of both organic and supporting fires including conventional, nuclear, and chemical.

b. The artillery liaison officer serves as the principal advisor to the battalion commander on fire support matters and is normally the battalion FSCOORD. (The mortar platoon leader normally is designated the FSCOORD when an artillery liaison officer is not available.)

c. The FSCOORD is responsible for preparation of the fire support plan, based on the commander's concept and established policies. Under the supervision of the S3, he coordinates all fire support. FM 6-20-1 and FM 6-20-2 discuss the duties of the FSCOORD in detail.

3-10. Fire Support Plan

a. *Purpose*. A fire support plan is formulated to insure that all available supporting fires are utilized in the most effective manner to assist in accomplishing the assigned mission. It is coordinated and integrated with plans for the employment of other combat means and becomes part of the commander's overall plan of operation. An effective fire support plan requires continuous, detailed, concurrent planning and coordination at all echelons. See figure 3-2.

b. *Personnel Involved in Fire Support Planning*.

(1) Commander.

(2) Artillery liaison officer (special staff responsibility for fire support coordination).

(3) S3 (unit staff responsibility for coordination).

(4) Other personnel who participate in fire support coordination are determined by the type of operation and fire support means available. Normally included are:

(a) Mortar and antitank platoon leaders and combat support company commander.

(b) Representatives of attached and sup-

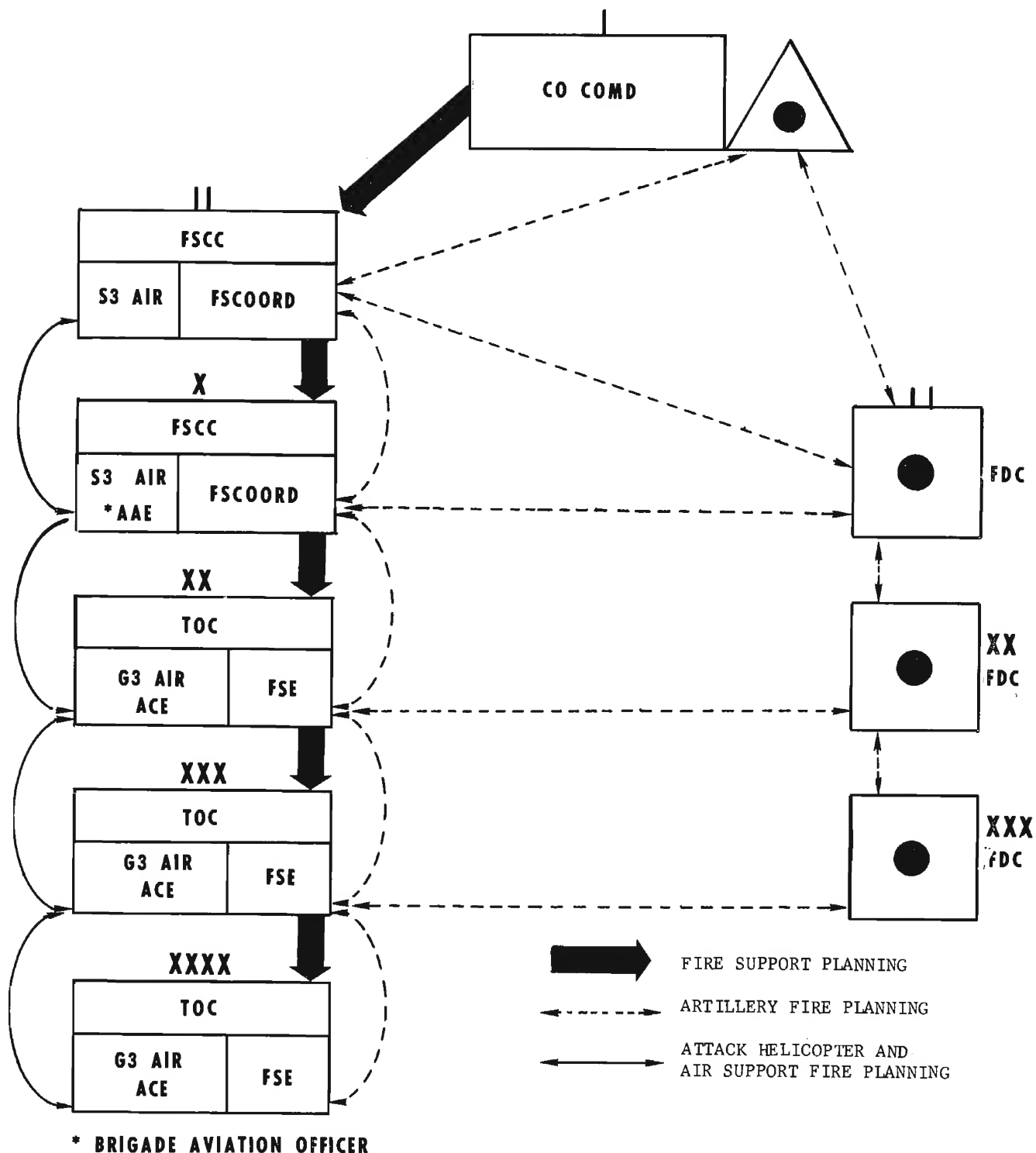


Figure 3-2. Fire planning channels.

porting fire support agencies including commanders of attached armor units.

(c) S3 Air.

(d) S2.

(e) Air liaison officer (ALO)/forward air controller (FAC).

(f) Naval gunfire liaison officer.

c. *Fire Support Portion of the Commander's Concept.* The commander's concept includes a statement of his desires concerning the employment of supporting fires. He points out general target areas which he feels will be of primary con-

cern to the battalion, and he designates which unit will receive the priority of fires. He also indicates the results he wishes to obtain from fire support. He may prescribe a schedule for fire support employment.

d. Development of the Fire Support Plan.

(1) After the commander issues his concept, the staff and company commanders develop the plans of operation, including fire support. Company commanders with their FO's plan the employment of fires required to support the unit's plan of operation. Targets suitable for attack by the organic weapons are designated. Additional fires required for the attack of specific targets are requested from either the direct support artillery unit or the battalion mortar platoon. The FSCOORD integrates into the battalion fire support plan the requirements established by—

(a) The battalion commander and his staff.

(b) The company commanders.

(c) Higher headquarters (e.g., a requirement to support the attack of another battalion).

(2) To meet the fire support needs established, the FSCOORD first applies the fire support means under battalion control. He informally requests additional fires from the brigade FSCOORD. When approved by the battalion commander, the completed fire support plan is disseminated to all concerned. Portions of the plan dealing with requests for artillery, nuclear, and naval fires, and preplanned airstrikes, all previously approved by the brigade FSCOORD, are forwarded to brigade headquarters for final coordination and allocation of the required means. The fire support plan is modified continuously as required by the situation.

(3) The completed fire support plan is designed to provide detailed coverage of all critical areas within range of the fire support means available to the battalion. In offensive operations, plans are prepared for fires on critical areas initially beyond the range of these means but which will come within range when the weapons displace as the attack progresses. Such areas normally extend at least through the first objective assigned by the brigade.

(4) Targets are referred to in the fire support plan by a common numbering system that is usually specified in the division/separate brigade SOP. Groups of targets may be designated by a code to facilitate the simultaneous delivery of heavy volumes of fire in certain areas. Targets for each type of indirect fire weapon are planned in the same critical area to permit immediate en-

gagement by at least one type weapon when others are engaged on other targets. Thus, the same area may have planned targets for mortar and artillery fires.

(5) At battalion level, the preparation and dissemination of a formal written fire support plan is often not practicable. Rather, details of the plan and approval of these details are sent piecemeal between the battalion and subordinate units. If time is available for preparation and dissemination, the plan may be published as one document, normally an overlay, and issued as an annex to the operation order. This one document normally includes all the details necessary for the effective employment of the available fire support; however, it may be constituted by the separate fire plans involved.

e. Special Considerations.

(1) Tanks, weapons of the antitank platoon, and other direct fire means may be assigned missions which preclude their integration into the battalion fire support plan. If these weapons are included in the battalion fire support plan, all concerned must be aware that their fires may be withdrawn any time they are needed for their primary mission. On occasion, the battalion or higher commander may assign specific direct fire weapons a primary mission of providing fire support for definite periods. When this occurs, these fires become a part of the battalion or higher echelon fire support plan.

(2) Preplanned airstrikes should be incorporated into the fire support plan. Alternate plans should be made to cover the targets in case airstrikes cannot be delivered. Safety measures are planned if strikes are to be delivered within the FSCL. Troops whose positions may become endangered by bombs delivered from high-speed aircraft are warned, and appropriate markers are employed.

(3) At times, air defense units with a surface-to-surface capability may be attached to or placed in support of the battalion for use in a ground support role. Use of air defense artillery in a ground support role, however, should never interfere with the primary mission of providing air defense. Appropriate information concerning these type fires is included in the fire support plan. When elements of air defense units are further attached to subordinate units of the battalion, integration of their fires is based upon the same considerations as indicated in (1) above.

3-11. Fire Support Requests

a. Nonnuclear Artillery Fires. Requests for non-

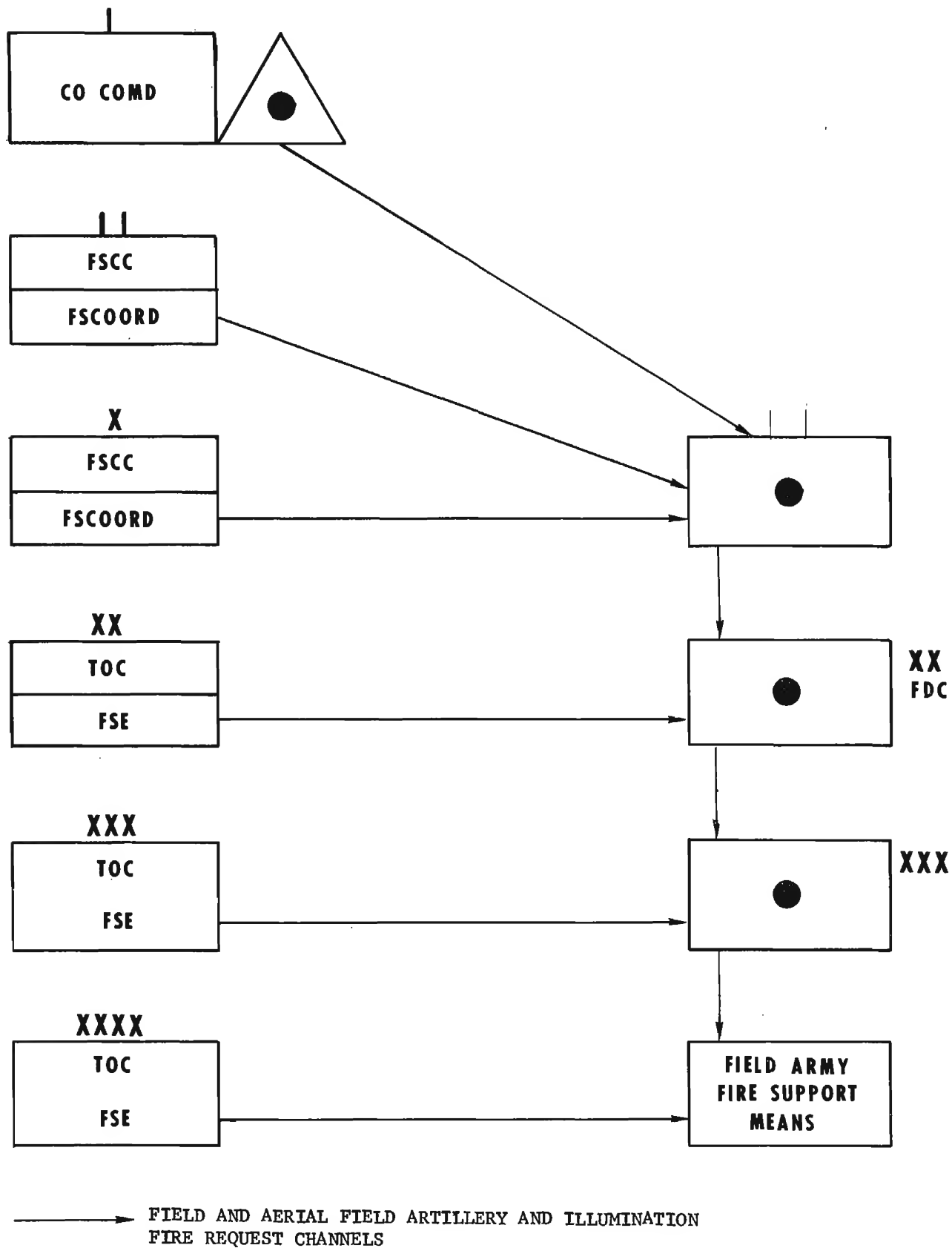


Figure 3-3. Conventional artillery and illumination fire request channels.

nuclear artillery fires are coordinated by the forward observer with the committed company and then transmitted directly to the fire direction center (FDC) of the supporting artillery battalion. Artillery fire requests originating at battalion and brigade are sent directly to the direct support (DS) artillery battalion FDC. This FDC will request any additional fires required from a reinforcing artillery unit, or if appropriate, from

the FDC of the next higher echelon. See figure 3-3.

b. Nuclear and Chemical Fires. Nuclear munitions are allocated commanders for planning purposes; the allocation is for a specific period, specific mission, or a selected phase of operation. These munitions are employed only after receipt of a specific authorization for expenditure by the releasing commander (i.e., commander who has

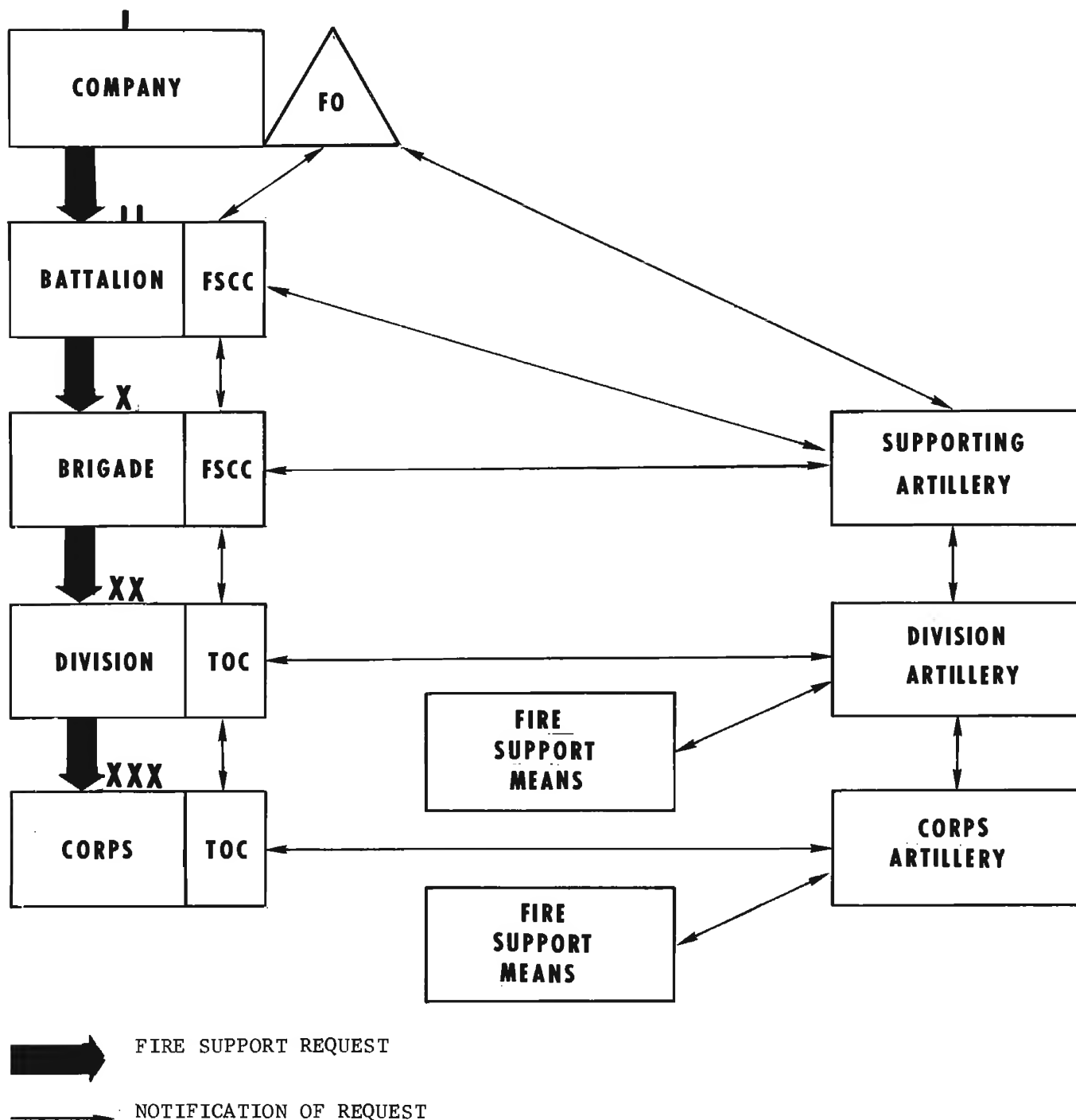


Figure 3-4. Nuclear and chemical fire request channels.

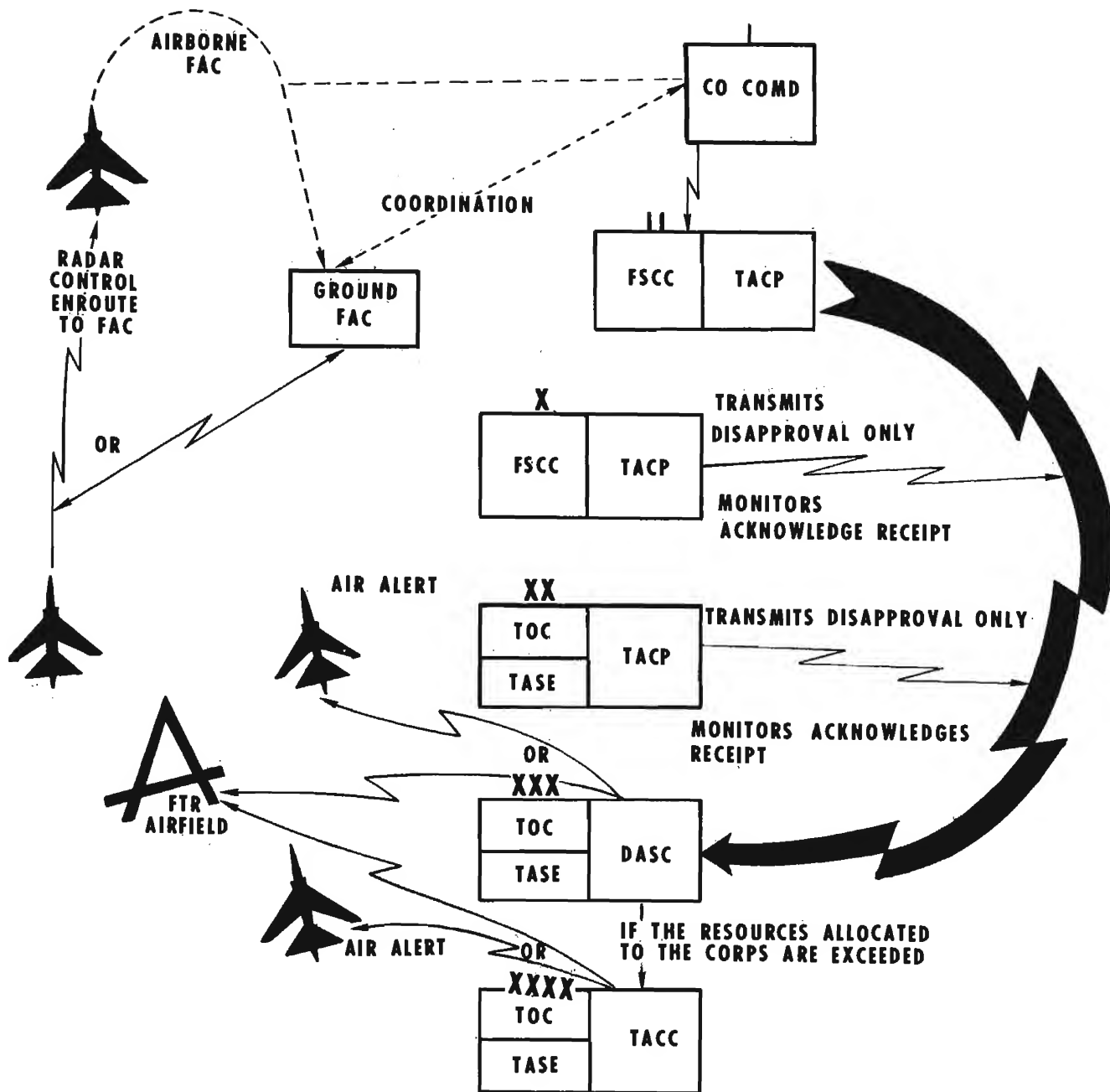


Figure 3-5. Close air support request channels.

the authority to approve expenditure of nuclear munitions). The commander may employ his nuclear weapons to produce fallout (surface or sub-surface bursts) when the surface bursts accomplish the results desired more effectively than airbursts. Chemical weapons, as with nuclear weapons, may be employed, after their use has been authorized, by the commander to whom they are allocated. Authority to employ is normally delegated to the lowest commander whose area of operations can be expected to encompass the probable area of predicted contamination to include

the downwind hazard. Requests for those type fires are processed through command channels. Procedures are designed to insure rapid transmission of requests to the commander or his representative authorized to act on the request. Notification of the request may also be sent through fire support channels to alert the FDC and to insure prompt delivery by using a concurrent transmission. See figure 3-4.

c. *Biological Fires*. Biological fires when authorized are subject to special conditions. Due to reac-

d. *Close Air Support.*

(TOC). After approval at the division TOC, the request is evaluated, assigned a priority, and consolidated before submission to the next higher headquarters. Normally, the field army TOC takes final action on preplanned requests and submits consolidated approved requests to the Air Force tactical air control center as requirements for execution. See figure 3-5.

The diagram illustrates the CO's fire support control system, showing the flow of command and control from the CO COMD to the AVIATION FIRE SUPPORT MEANS.

CO COMD (Commander's Control and Monitoring Display) is the central hub, connected to three levels of command and control:

- Level 1: FSCC (Fire Support Control Center) / S3 AIR** (Staff Sergeant 3 Air). This level is connected to the CO COMD and the AVIATION FIRE SUPPORT MEANS.
- Level 2: FSCC (Fire Support Control Center) / S3 AIR / AAE *** (Staff Sergeant 3 Air / Air Support Element). This level is connected to the FSCC / S3 AIR and the AVIATION FIRE SUPPORT MEANS.
- Level 3: TOC (Targeting Operations Center) / G3 AIR / ACE** (Targeting Operations Center / G3 Air / Air Control Element). This level is connected to the FSCC / S3 AIR / AAE * and the AVIATION FIRE SUPPORT MEANS.

The flow of command and control is indicated by arrows and labels:

- CO COMD** sends commands to the **FSCC / S3 AIR**.
- The **FSCC / S3 AIR** sends commands to the **FSCC / S3 AIR / AAE ***.
- The **FSCC / S3 AIR / AAE *** sends commands to the **TOC / G3 AIR / ACE**.
- The **TOC / G3 AIR / ACE** sends commands to the **AVIATION FIRE SUPPORT MEANS**.
- The **AVIATION FIRE SUPPORT MEANS** sends feedback to the **CO COMD** via a curved arrow labeled **MONITORS ACKNOWLEDGES RECEIPT**.
- The **AVIATION FIRE SUPPORT MEANS** sends feedback to the **TOC / G3 AIR / ACE** via a curved arrow labeled **TRANSMITS DISAPPROVAL ONLY**.

—————→ ATTACK HELICOPTER REQUEST
 -X-X-→ TASKING
 - - - - -→ MONITORING

Figure 3-6. Attack helicopter fire request channels.

air support center (DASC) at corps. Such requests are monitored by the brigade S3 Air and division G3 Air, who take no action unless the request is disapproved by the brigade or division, in which case the S3/G3 Air enters the air request net to issue the disapproval. Figure 3-5 illustrates close air support channels.

(3) Immediate requests may be forwarded direct from company level to the DASC if a FAC with adequate communications is present. If this occurs, the battalion TACP functions in the same manner as the TACP of intermediate headquarters.

(4) When naval or Marine close air support is available, requests are forwarded through the attached brigade air/naval gunfire platoon.

e. Naval Gunfire. Requests for naval gunfire are submitted through artillery channels to naval gunfire liaison personnel supporting the division/separate brigade. When naval gunfire is employed, it is fired by direct or general support ships using naval gunfire procedures.

f. Attack Helicopters. Attack helicopters support land combat operations by providing direct aerial fire support against surface targets. Requests for this type fire support are forwarded to the airspace control element (ACE) of the DTOC. Approved requests are assigned to the aviation fire support means for implementation at the lowest echelon capable of fulfilling the need. See figure 3-6.

CHAPTER 4

OFFENSE

Section I. INTRODUCTION

4-1. General

a. This chapter provides doctrine for the employment of the infantry battalions in offensive operations. Conditions of terrain, climate, and special operations may dictate modification of techniques and procedures for the offense; however, the doctrine remains essentially the same. Chapter 7 and the FM 31-series manuals (app A) discuss techniques of offense peculiar to special operations and environments.

4-2. Offensive Operations

a. General.

(1) Initiative is a condition in which a commander retains the capability to apply his resources to influence the battle; therefore, offensive operations are preferred to defensive operations because the initiative lies with the attacker.

(2) Commanders should seek every opportunity to gain the initiative. Bold and aggressive employment of combat power, achievement of surprise, or the exploitation of enemy errors or weaknesses serve to gain the initiative. Once gained, the initiative should be retained.

b. Purpose. Offensive operations are undertaken to carry the battle to the enemy and to accomplish one or more of the following:

- (1) Develop the situation.
- (2) Defeat enemy forces.
- (3) Secure territory or terrain.
- (4) Deprive the enemy of required resources.

(5) Divert the enemy's attention from other areas.

c. Types of Offensive Operations. The five types of offensive operations are movement to contact, reconnaissance in force, coordinated attack, exploitation, and pursuit.

d. Forms of Maneuver. The three basic forms of maneuver are the penetration, frontal attack, and the envelopment; a double envelopment, a turning movement, and encirclement are variations of the envelopment. All offensive operations normally will be a part of one of these forms. The battalion, independently or as part of a larger force, has the capability of participating in all forms of maneuver.

e. Concept.

(1) The battalion is organized for combat to make the best use of the capabilities of all its elements. It employs fire (to include nuclear and chemical) and maneuver to accomplish its offensive missions.

(2) When nuclear or chemical munitions are employed, the battalion exploits these fires. Combat forces move over, through, or around the effects of these fires to dominate, neutralize, capture, or destroy enemy forces, control terrain objectives, or disrupt enemy rear areas.

(3) The enemy may employ special munitions at any time, and, if he possesses an air arm, he may be capable of dominating some or all of the airspace for periods of time. To counter these threats, the battalion must avoid concentration of units, activities, or installations that present lucrative targets.

Section II. FUNDAMENTALS OF OFFENSE

4-3. Fundamentals

a. The attack is planned carefully and executed aggressively.

b. Combat power in the offense is achieved by organizing responsive, combined-arms forces that

can move rapidly, deliver accurate fire, and maintain continuous communications.

c. Once the attack is launched, the commander exploits all available means to gain the objective in the shortest possible time.

d. Every effort is made to disrupt and neutralize enemy support and reinforcement.

e. Successful offensive action requires the concentration of superior combat power at the decisive point and time. To assist in this regard, the battalion mission is analyzed and, if possible, translated into specific terrain objectives which when secured will permit control of the area or facilitate destruction of the enemy force. When it can be determined that the securing of a single objective will contribute most of the accomplishment of the battalion mission, this objective is called the decisive objective. The battalion attack is directed against it. The main attack is given priority in the allocation of both maneuver and fire support units. Main and supporting attacks are not mandatory when there is no decisive objective.

f. Fire superiority must be gained early and maintained throughout the attack to permit freedom of maneuver and to minimize losses.

g. The attacker maneuvers to exploit the effects of his fire and to close with and destroy the enemy by assault. Maneuver should attempt to force the enemy to fight on unfavorable terrain or lure him into creating a lucrative target for destruction by fire.

h. Plans should provide for the exploitation of favorable advantages that develop during the attack. When an opportunity for decisive action presents itself, the commander commits all neces-

sary resources to achieve success. Continual pressure on the enemy denies him the chance to recoup his losses or to gain the initiative.

i. Terrain is important in offensive operations because it often provides advantages that can be exploited (observation, cover and concealment, fields of fire, secure routes for movement) and it allows freedom of movement, affords additional security, and disrupts enemy routes of movement.

j. When the enemy has been located, there are three principal tasks in the attack: hold the enemy in position, maneuver to gain an advantage, and deliver an overwhelming attack at the decisive place and time.

k. Surprise is always sought. It can be gained by deceiving the enemy by choosing an unexpected time, place, direction, or form of maneuver for the attack. Tactical cover and deception aid in achieving surprise.

l. The commander must provide for the security and integrity of his force. An aggressive attack inherently provides security.

m. The commander must insure that the attacks of his subordinate units/elements are coordinated and contribute to his mission.

n. Forces are dispersed to reduce vulnerability to attack, but only to the extent that accomplishment of the mission is not impaired.

o. Adequate combat support and combat service support must be provided to sustain the attack.

Section III. PLANNING THE ATTACK

4-4. General

The battalion commander and his staff follow a logical sequence of actions in planning the attack. The plan of attack includes the scheme of maneuver and fire support plan.

a. First, the mission is studied and analyzed to gain a complete understanding of all tasks (both specific and implied) required to accomplish it. The staff provides the commander all current information available to insure that he is abreast of the situation as he considers his mission.

b. The battalion commander, based upon study of the mission, knowledge of both the friendly and enemy situation, guidance received, and his own professional knowledge and skill, restates the mission and provides guidance to the staff. His guidance is usually general in nature, but does indicate courses of action which he feels merit detailed consideration by his staff. He refrains from fa-

voring a specific course of action at this time in order to permit the staff to make unbiased estimates and explore all courses of action which promise success.

c. After receiving the commander's guidance, staff officers prepare separate estimates and recommendations (FM 101-5).

d. Upon receiving the staff recommendations, the commander completes his own estimate and arrives at a decision. Frequently, this rapid process may be performed in a few minutes. The commander's decision translates the course of action selected in the estimate into a complete statement that answers the questions Who, What, When, Where, How, and Why. The decision includes the direction and objective(s) of the main and supporting attacks (if considered) and the planned employment of the reserve. Additionally, the decision may include information on the scheme of

maneuver and a general visualization of fire support, although the latter is more likely to be included in the commander's concept of how the operation will be conducted. When the commander's decision has been reached, subordinate commanders are normally informed of the general plan by fragmentary order so that concurrent planning can be initiated.

e. After stating his decision, the commander provides the staff with his concept of how the operation will be conducted (commander's concept). In doing so, he elaborates on his decision (explaining any aspects deemed necessary) and, in addition, provides guidance and instructions to the staff to facilitate task planning and preparation of orders. The commander's concept may include explanation or clarification of:

- (1) Purpose of the operation (objective of mission).
- (2) Scheme of maneuver to include visualization and sequence of important events.
- (3) Use of nuclear and other fire support, including priorities; allocation of nuclear weapons/rounds; and duration of preparatory fires.
- (4) Organization for combat.
- (5) Requirements for security.
- (6) General control measures.
- (7) Air defense missions and/or priorities.
- (8) Any other measures he may consider of broad significance to the command.

f. The commander's decision and concept of operation are then translated into the operation order which is disseminated to subordinate, adjacent, and higher headquarters.

g. Following the issuance of the operation order (possibly oral), the commander and staff supervise and assist in its execution, modifying it as required to meet changes in the situation. Control measures such as checkpoints and phase lines are used to facilitate issuance of fragmentary orders to react to changing situations. (See app L for discussion of troop-leading procedures.)

4-5. Objectives

a. The battalion objective is normally assigned by higher headquarters. It is usually a key terrain feature, a geographical area, or an enemy force. When not specifically indicated, the commander determines and assigns objectives based on analysis of his assigned mission. When seizure or destruction of the objective requires the employment of more than one subordinate unit, the objective is clearly subdivided to delineate responsibility. The

main attack (when designated) is directed at seizure of that portion of the objective which will provide decisive results.

b. Relatively close-in objectives normally are assigned to footmobile forces while deeper objectives are normally assigned to more mobile forces. Selection of intermediate objectives is made only after consideration of the mission; the weather and terrain; the enemy strength, composition and dispositions; and friendly troops available. Intermediate objectives are assigned only as necessary to insure control.

4-6. Available Forces

The brigade normally allocates to the battalion all resources necessary to accomplish the assigned mission. These resources may include combat, combat support, and combat service support units attached to or placed in support of the brigades. After analyzing his mission, the battalion commander considers the resources available to determine how they can best be employed to insure sufficient combat power at the point of decision. He keeps the brigade commander informed of changes in the friendly and enemy situation that affect accomplishment of the mission and allocation of forces.

4-7. Scheme of Maneuver

a. General. The scheme of maneuver is the commander's placement and movement of maneuver units to accomplish the mission. At battalion level, the scheme of maneuver is based on the mission, forces available, enemy, terrain, weather, space and time. In the attack, maneuver units normally are employed in the main attack, supporting attack(s), and the reserve. When the battalion attacks in a single column, however, only a main attack (lead company) and reserve (balance of the companies) will be involved. When companies are assigned objectives whose seizure offers equal opportunity for success or when the battalion attacks in multiple columns, main and supporting attacks may not be designated initially. However, as the situation develops, a particular attack may be designated as the main attack. When appropriately tailored and/or supported with Army aircraft, the battalion may integrate airmobile operations into the scheme of maneuver.

b. Main Attack.

(1) The main attack is directed against the objective whose seizure best facilitates the accomplishment of the assigned mission. This attack is accorded priority in the allocation of combat

power to insure it has the means to obtain decisive results.

(2) It is weighted by the allocation of maneuver units and by fire and other combat support. It is frequently given the advantage of the best avenue of approach and directed against the enemy weakness.

(3) On occasion, the main attack may be changed from one unit to another during the conduct of the attack to exploit a successful advance or to take advantage of weaknesses detected in the enemy defenses.

c. Supporting Attack(s).

(1) A supporting attack if used should contribute to the success of the main attack by accomplishing one or more of the following:

(a) Seizure of terrain to facilitate maneuver of the main attack.

(b) Fix the enemy in position.

(c) Deceive the enemy as to location of the main attack.

(d) Force the enemy to commit reserves prematurely, piecemeal, or in an indecisive area.

(e) Prevent enemy reinforcement in the area of the main attack.

(2) Conventional, nuclear, and chemical fires may be employed to accomplish tasks appropriate to a supporting attack.

d. Reserve.

(1) *General.* In the attack, the battalion retains a reserve to enter combat at a decisive time and place to exploit success or complete the accomplishment of the mission. The reserve also provides the commander a means of dealing with contingencies. A high degree of mobility enhances the potential of a reserve. The reserve should not be used to redeem failure but to:

(a) Exploit success.

(b) Reinforce the attack.

(c) Maintain or increase the momentum of the attack.

(d) Hold ground seized by the attacking force.

(e) Defeat or block enemy counterattacks.

(f) Provide security.

(g) Block routes of enemy escape.

(2) *Size of reserve.* A deep objective, limited knowledge of the enemy situation, or inability to visualize the attack to its final objective requires the retention of a larger reserve than in situations where these conditions are generally known. When attacking an enemy with known inferior mobility,

the reserve may be smaller than when attacking an enemy with equal or superior mobility.

(3) *Location of the reserve.* Dispersal of reserve elements into multiple assembly areas or march columns provides a degree of protection from nuclear attack. Consideration should be given to locating the reserve in a position that facilitates rapid movement to points of probable employment.

(4) *Movement of the reserve.* In fast-moving operations, the reserve may move at a prescribed distance behind the attacking echelons. In slow-moving operations, the reserve normally moves by bounds and can in certain situations be transported by Army aviation. Regardless of how it moves, the reserve must always be positioned for rapid employment and must remain within supporting distance of the committed forces.

(5) *Nuclear weapons.* Nuclear weapons are allocated by division/separate brigade. The brigade normally holds a portion of its allocated nuclear weapons in reserve after suballocation of required weapons to support the attack.

(6) *Reconstitution of reserve.* Plans should be made prior to the attack to reconstitute a reserve at the earliest opportunity after the reserve is committed.

(7) *Lack of a formal reserve.* The mechanized and airmobile battalion commander may often rely on the mobility of his battalion or battalion task force and the available fire support to influence the action at the decisive moment rather than through designation of a formal reserve. Unengaged units can be moved rapidly to decisive parts of the battle area to exploit a success or counter an enemy attack.

e. Formations. The formation appropriate to a battalion in the offense is a column or a line, or some variation thereof. The scheme of maneuver specified in the commander's decision establishes the battalion formation for the attack.

(1) *Column formation.* In the column formation, the battalion attacks in a column of companies along a single axis. The column formation is suitable when attacking along a narrow front, when the enemy situation is vague, or when the initial enemy resistance is expected to be light. It may also be appropriate when nuclear weapons are employed to destroy the enemy in a portion of a zone. The column formation provides the commander with maximum flexibility in employment of his forces, leaving the bulk of the maneuver units available for commitment as the situation develops. The disadvantages of the column formation are that it lacks firepower to the front and

requires more time to move reserve elements forward for commitment. For these reasons, mounted forces are better suited for this formation. The battalion is in column formation when one company is followed by the others, regardless of the formation adopted by each company. A variation of the column is the echelon formation in which the companies move at staggered intervals on different routes along a single axis.

(2) *Line formation.* The line formation employs two or more companies in the attacking echelon. It is appropriate when maximum combat power forward is desired. With dismounted forces, when conditions otherwise favor a column formation, the line formation may be used if excessive time would be required to deploy the reserve from the rear of a column formation. Similar considerations are involved with respect to the interval between attacking units. Although distance will vary with the mission, terrain, and enemy situation, the interval is normally not so great as to preclude mutual support (movement of one company, if necessary, to the aid of another to prevent defeat in detail). In mounted operations, mobility permits greater intervals than in dismounted operations. The battalion is in a line formation when two or more companies are abreast, regardless of the formation adopted by each company.

4-8. Organization for Combat

The mission, enemy situation, terrain, troops available, and maneuver space are the major considerations in determining the organization for combat. Generally, infantry and tank companies (if available) are cross-attached or cross-reinforced to form teams. The task organization is adjusted as required in the course of an operation to meet the requirements of changing conditions. The availability of Army aviation to support an operation enhances combat effectiveness. See paragraph 2-24 for a detailed discussion of organization for combat.

4-9. Fire Planning

a. Integration. The fire support plan and the scheme of maneuver for the attack must be closely coordinated and integrated to provide maximum effectiveness. The two are developed concurrently and are revised if necessary as the operation progresses. Fire support planning should include consideration of all available fire support means.

(1) *Preparatory fires.* The commander ordering the attack determines whether an artillery preparation will be fired. Factors considered are—

(a) Whether the probable effect of the preparation will justify the attendant loss of tactical surprise.

(b) Availability of fire support means, to include ammunition supply.

(c) The number of targets which can be specifically located in time to prepare fire plans.

(d) Whether the desired effect can be accomplished before the enemy can change his tactical dispositions.

(e) The effects of fires in creating obstacles to planned maneuver.

(f) Troop-safety requirements.

(2) *Fires during the attack.* The fire support plan should include fires which can be quickly placed in selected areas when they are needed. Planned fires are also used to assist the attacking force and consolidation of the objective. Fire support elements are required to control ammunition resupply and expenditure to insure available fire support for targets of opportunity which may develop during the attack.

(3) *Fires during reorganization and consolidation.* Fire support to cover reorganization and consolidation of objectives is included in the fire support plan. Fire data for these type fires are computed as completely as possible to permit rapid and effective fire support to repel counterattacks.

b. Alternate Plans. The availability of nuclear fires may often have a decisive influence on the scheme of maneuver. In a penetration, nuclear fires may be utilized to rupture the enemy's position or to widen the gap, or both. If the plan of maneuver has been determined by the planned employment of nuclear weapons, alternate plans for the attack must be prepared, in the event the nuclear weapons do not produce the predicted effects or if for some reason they cannot be delivered.

4-10. Control Measures for the Attack

The battalion commander prescribes those control measures required to adequately control the operation of the battalion, in addition to those controls specified by brigade and higher headquarters. Controls imposed by higher headquarters are normally limited in mission-type orders, or when the battalion is assigned a semi-independent role, but may be in considerable detail when the battalion is participating in a coordinated brigade attack. Control measures may include—

a. Objectives. (See para 4-5.)

b. Intermediate Objectives. The battalion commander may assign intermediate objectives to companies. However, only the minimum number necessary are assigned since their seizure may slow the attack, restrict maneuver, and cause excessive massing. A terrain feature may be designated an intermediate objective when:

(1) Its occupation by the enemy will interfere with the progress of the attack.

(2) It is expected that prolonged and difficult combat on or about it will be necessary before the battalion can proceed to its final objective.

(3) Its seizure would facilitate control of subordinate units because of the observation provided by the terrain, or where time-phasing of the attack on the final objective is required or difficulty in control is expected.

(4) It is needed for positioning of subordinate units or weapons to insure close coordination or support of an attack against a strong enemy position.

c. Boundaries.

(1) Boundaries are used to delineate zones of action of units in the attack and to assist in controlling the fires and maneuver of these units. Boundaries are normally drawn along terrain features easily recognized on the ground, and they are situated so that key terrain features and avenues of approach are inclusive to one unit. A boundary should extend beyond the objective at least to the depth necessary for coordination of fires and positioning of security elements in the seizure and consolidation of the objective. Boundaries are normally extended rearward to the extent necessary to allow space for positioning of command and administrative elements. The rearward projection of the boundaries defines the rear limit of the unit's area of responsibility.

(2) Boundaries are seldom used on exposed flanks.

(3) Units may move or fire across boundaries only after coordination with the adjacent unit. In certain situations, boundaries may be used only at the line of departure (LD) and in the objective area.

d. Zone of Action.

(1) A zone of action consists of the assigned area of operation of subordinate elements. Normally, it consists of the terrain between two lateral boundaries. The forward and rearward limits of the boundaries specify the limits of the zone. Since boundaries are seldom used on an exposed flank, the width of a zone extends in the direction of the exposed flank as far as the commander con-

siders necessary to accomplish his mission and to provide for the security of his forces. Normally, this does not project beyond his operational boundaries or the effective range of organic and supporting weapons.

(2) Zones of action are assigned when close coordination and cooperation between adjacent units are required, or when the mission of units requires a clear delineation of areas of responsibility. If elimination of all enemy forces in the zone is desired, the operation order must so specify. If enemy units are bypassed, brigade will destroy the bypassed enemy force with a follow and support unit, the brigade reserve, or by fire. Brigade must be informed of all bypassed enemy units.

(3) The commander is responsible for all military operations conducted in his assigned zone except those specifically assumed by higher headquarters. He is free to fire and maneuver his units within the zone. The commander is responsible for locating and destroying the enemy in his zone consistent with the accomplishment of his mission and to the extent necessary to provide for the security of his command. Known enemy units whose strength or location could threaten the success of his operation or that of a higher echelon are not bypassed without authority of the brigade commander.

(4) There is no single rule which can be applied in establishing the size of the zone of action appropriate for an attacking battalion. Determination of the size of the zone is based on consideration of the mission, the enemy situation, terrain available, maneuver space required, and the size and nature of the objective. Each of these factors as discussed below must be considered in relation to the others since they are rarely in consonance and are frequently in conflict.

(a) *Mission.* Accomplishment of the mission is the paramount consideration. The nature of the mission may, of itself, influence the size of the zone of action. For example, if the attacking force is required to clear its assigned zone, a narrower zone may be preferable. On the other hand, an attacking force which is participating in an exploitation or pursuit may be assigned a wider zone since missions appropriate to these types of offensive operations normally involve a relatively weak or disorganized enemy.

(b) *Enemy.* Consideration of the enemy includes his strength, dispositions, and operational capabilities. An attack against a weak or disorganized enemy force permits the assignment of a relatively wide zone of action; conversely, an attack against a well-trained, well-organized

enemy occupying strong, mutually supporting positions indicates the need for a narrow zone.

(c) *Terrain.* The nature of the terrain influences the width of the zone of action in that it facilitates or inhibits the attacking unit's observation, fields of fire, freedom of maneuver, and trafficability. Terrain which offers favorable characteristics in these respects permits the assignment of a relatively wide zone of action; on the other hand, terrain which is unfavorable in any or all of these characteristics favors the assignment of a narrow zone. Ideally, a zone of action should include at least one suitable avenue of approach to the objective.

(d) *Maneuver space.* Sufficient space must be provided to permit maneuver of the attacking forces and efficient use of available fire support. The zone of action should be wide enough to permit subordinate commanders a degree of latitude in selecting a scheme of maneuver and, as far as practicable, provide enough space to preclude unnecessary congestion of units, thereby reducing the risk of creating lucrative targets for the enemy's massed defensive fires.

(e) *Objective.* Both the size and nature of the objective influence the width of the zone. The zone, as a minimum, must be generally as wide as the objective assigned. On the other hand, the limit to which the width of the zone is extended is influenced by the capability of the attacking force to retain control of the objective area after its seizure.

e. Axis of Advance.

(1) An axis of advance is designated to indicate the general direction of movement of a unit. A unit advancing along an axis is not required to clear the area along the axis and may bypass enemy forces which do not threaten the accomplishment of its mission. When forces are bypassed, however, the higher commander must be informed. A unit can deviate from the axis; however, major deviation must be reported. Commanders must insure that deviation from the assigned axis of advance does not interfere with the maneuver or fires of adjacent units.

(2) An axis of advance normally is used when conditions favor the use of an approach facilitating rapid seizure of a deep objective, in operations against light or discontinuous enemy resistance, and where the need for a mutually supported attack does not exist. An axis of advance is most often used in mounted operations.

(3) When a company is assigned an axis of advance, it adopts the formation best suited to the situation. When two axes are used by the bat-

talion, they must be far enough apart to permit freedom of maneuver on each, yet close enough to permit the units on each axis to maneuver in support of each other.

(4) A commander need not employ his unit in a single column on his assigned axis; he may retain the assigned axis on which to employ a main attack while designating an adjacent axis of advance for a supporting attack; or he may designate two axes of advance following generally the assigned axis. Care must be exercised in assigning additional axes to minimize the possibility of interference with adjacent units.

(5) An axis of advance may be indicated within a zone of action to more closely control the general location of a subordinate unit within the assigned zone of action.

f. Direction of Attack. A direction of attack is generally more restrictive than an axis of advance since it designates the specific direction or route which the center of mass of the unit will follow. Because of its restrictive nature, it normally is used only when close control must be maintained over the maneuver of a subordinate element along a specific route. Assignment of a direction of attack has particular application to a counterattack.

g. Line of Departure.

(1) A line of departure is designated to coordinate the departure of attack elements. The LD should be easily recognized on the ground and on the map and should be generally perpendicular to the direction of attack. It should also have covered and concealed approaches, and afford protection from enemy observation and direct fire weapons. The LD should habitually be under control of friendly forces and, if nuclear weapons are used, should conform to the commander's guidance on troop safety. When the LD cannot be fixed on terrain, as in a counterattack, the anticipated line of contact (LC) may be designated the LD.

(2) The battalion commander may select an LD different from that specified by brigade, providing his leading elements cross the brigade LD at the time specified by brigade. When attacking units are widely separated, the battalion commander may find it necessary to designate separate LD and times of attack.

h. Time of Attack.

(1) The time of attack is designated as the time leading elements cross the LD. It may be a precise time, on a prescribed signal, on order, or following the execution of a specified tactical action. Considerations in selecting the time of

attack include: requirements imposed by higher headquarters; time required for subordinate units to reconnoiter, prepare and coordinate plans, issue orders, organize, and move to the LD; and the need for surprising the enemy and taking advantage of his weakness before he can correct it.

(2) The attack by subordinate elements may be echeloned in time to deceive the enemy and allow shifting of friendly supporting fires to successive attacks. Different times of attack may be used to allow for different rates of movement of units in order that all attacking forces arrive simultaneously on the objective. A simultaneous attack usually prevents the enemy from concentrating all available fires on a single attacking element.

(3) When nuclear or chemical weapons are employed prior to an attack, their delivery is closely coordinated with the time of the attack. The time of attack should follow detonation of nuclear weapons as closely as possible to allow early exploitation of their effects; however, time may be required for tactical damage assessment and necessary modification of the plan of attack.

i. Company Attack Positions.

(1) Company attack positions are used to facilitate deployment and last-minute coordination prior to crossing the LD. They should be located close to the LD and provide cover and concealment. Company commanders normally select and designate their own attack positions; however, the battalion commander may designate the positions when extremely close control of operations must be maintained such as in night attacks and river crossings.

(2) Only assault units use attack positions. To preclude presenting a vulnerable target, units should occupy attack positions for a minimum amount of time. Ideally, attacking companies should move through attack positions without stopping. Once units have cleared the attack position, they should be deployed so as to permit crossing the LD in a suitable combat formation.

j. Assembly Areas. An assembly area is an area in which a command assembles preparatory to further action. The brigade normally prescribes the assembly area(s) for the battalion. Within this area(s), the battalion commander designates company assembly areas dispersed for all-round defense where orders are issued, maintenance and supply are accomplished, and organization for combat is completed. Assembly areas should provide concealment, dispersion, suitable routes forward, and security from ground and air attack.

When possible, assembly areas should be beyond the effective range of the bulk of enemy artillery.

k. Phase Lines. A phase line is a central line which extends across the zone or likely area of action. It is located on an easily recognized terrain feature such as a ridgeline, stream, or road. The phase line is used to control the forward movement of units; however, normally they are not required to halt at a phase line unless so ordered. A phase line may be used to limit the advance of attacking elements. Phase lines are particularly useful in fast-moving mounted operations. Units are normally required to report arrival at each phase line.

l. Infiltration Lanes. Within the area of infiltration, lanes are designated to provide sufficient space for infiltrating groups to move by stealth. To facilitate the control and coordination of fires for an infiltration movement, the commander may use infiltration lanes in conjunction with a coded designation of infiltrating groups and their established sequence of movement, checkpoints, and phase lines. Rallying points or areas are normally designated at locations along the infiltration lane(s) and in the objective area.

m. Checkpoints. Checkpoints are reference points used to facilitate control. They may be selected throughout the zone of action or along an axis of advance or direction of attack. By reference to checkpoints, a subordinate commander may rapidly and accurately report successive locations and request fire support, and a higher commander may designate objectives, LD, assembly areas, etc.

n. Other Control Measures. For added control measures used in airborne and airmobile operations, see FM 57-1 and FM 57-35.

4-11. Security

a. General.

(1) The battalion commander is responsible for the security of the battalion as a whole. In turn, commanders of each subordinate element of the battalion are responsible for security of their units. Both offensive and defensive measures are taken prior to the attack to prevent the enemy from determining the time and place of the attack and to cover its preparation. Although a battalion's operation order will not normally include a tactical cover and deception annex, all operations include some cover and deception measure. In addition, the battalion will assist in the implementation of any such plans made by higher headquarters.

(2) The battalion commander employs organic and attached units (or elements thereof) and supporting forces to obtain the desired security. The reconnaissance platoon or elements of the division/separate brigade cavalry squadron/troop which may support the brigade or battalion are ideal for security roles because of their organic mobility and firepower. During the attack, security is obtained by employment of security forces and surveillance means, disposition of friendly units, speed with which the attack is executed, control of key terrain, and use of supporting fires.

(3) When battalion security forces are employed, they normally operate directly under battalion control and are given specific missions as required. In determining the requirement for security, the commander considers the security afforded by all available sources.

b. Coverage of Gaps. When the battalion attacks on a broad front, gaps of considerable width can be expected to occur between companies within the battalion and between the battalion and adjacent units. Responsibility for control of such gaps must be clearly specified.

(1) Gaps are controlled primarily by security forces, by patrols, by continuous ground and aerial surveillance, and by fire using resources immediately available and other resources such as tactical air.

(2) If enemy forces detected in gaps are large enough to seriously interfere with the accomplish-

ment of the mission they are destroyed by fire or by fire and maneuver. Preferably, they are destroyed by fire to avoid commitment of maneuver forces. Those enemy forces not posing a serious threat may be contained by minimum force until they can be eliminated by brigade reserve units or other forces.

c. Communications Security. The battalion commander is responsible for the communications security of all his radio nets, including physical security, cryptosecurity, and transmission security.

(1) Special attention is required for signal security measures designed to minimize enemy signal intelligence on friendly communications, radars, and infrared surveillance devices.

(2) Companies must utilize all available communications security and counter-countermeasure means to reduce the effect of such exploitation and its impact on unit operations.

4-12. Combat Service Support

The plan of attack must be supported logistically. The battalion commander is concerned with the materiel readiness of his equipment and with critical shortages of equipment and supplies that may adversely affect the combat operation. If a projected operation cannot be supported with resources available, assistance is requested from higher headquarters (FM 54-2). For additional guidance for combat service support requirements for tank-heavy or infantry-heavy mechanized infantry battalion task force, see FM 17-1.

Section IV. CONDUCT OF THE ATTACK

4-13. General

a. The discussion in this section applies generally to any attack unless otherwise noted. Conduct of attacks employing various forms of maneuver and in special conditions is discussed in succeeding sections of this chapter and in FM 7-30 and FM 61-100.

b. Flexibility and speed of maneuver, adequate combined-arms fire support to include TAC Air, and timely decisions are required for any attack, particularly in operations against an enemy who possesses mobility equal to that of the attacking force and nuclear firepower.

c. A successful attack demands the best effort of all concerned. Aggressive leadership, proper staff supervision, well-trained troops, high morale, and esprit are all essential to success.

d. The speed, armor protection, and mobility of

tanks and mechanized infantry vehicles must be exploited to the maximum degree to permit infantry-tank task forces to rapidly close with and destroy the enemy. Infantry should remain mounted in their vehicles during movement as long as possible, dismounting only when required to do so by terrain conditions, enemy action, or enemy troop disposition.

e. Dismounted attacks must be time-phased more slowly than mounted attacks. The ability of the infantry to maneuver over difficult terrain frequently makes it possible to use avenues of approach which may gain the advantage of surprise. Tanks are used to support the advance of dismounted infantry, when possible. The guiding principle is that the tanks should be employed in the method that will most decisively influence the action. Tank units should be employed in mass at the decisive time and place; the fewer the number available to the commander of a dismounted oper-

ation, the greater is the requirement for concentration of the tanks to obtain massed firepower and shock effect.

f. When suitably supported by Army aviation, the battalion can conduct airmobile operations that are relatively independent of terrain influences that restrict ground operations; and airmobile operations can be integrated into, and become an integral part of, any infantry battalion's scheme of maneuver. See paragraphs 7-36 through 7-44 for a discussion of airmobile operations.

g. The battalion, when reinforced or cross-attached with armor, accomplishes its mission by closing with and destroying the enemy by one of three general methods of attack: attacks in a single direction; attacks in two or more converging directions; or tanks support by fire only.

(1) *Attack in a single direction.*

(a) *Coordination.* Because the committed maneuver elements of the battalion attack in the same direction, coordination and control of elements are less difficult.

(b) *Mutual support.* Since the maneuver elements of the battalion are close together throughout the attack, mutual support within the battalion is simplified.

(2) *Attack in two or more converging directions.*

(a) *Surprise.* An attack that converges on the enemy from more than one direction forces him to fight in more than one direction simultaneously and may achieve surprise; however, the attacker may be subject to piecemeal defeat in detail if his attack fails.

(b) *Coordination.* When elements of the battalion are attacking over difficult terrain with varying enemy resistance, the coordination and control necessary to insure a coordinate attack and simultaneous assault may be difficult to achieve. Measures must be taken to prevent attacking elements from firing into each other.

(c) *Mutual support.* The separate directions used by the battalion make mutual support between elements of the force more difficult than in the single-direction attack.

(3) *Tanks support by fire only.* The primary justification for this infrequent method of attack is under conditions where terrain, enemy-emplaced obstacles, or overwhelming antitank defenses prevent tanks from moving with the maneuver force. This method does not take maximum advantage of the mobility, shock effect, and combat power of tanks.

(4) *Selection of a method of attack.* During

an attack, any one or more of the three methods of attack may be used. As the situation changes, the commander is alert to vary his method. The mission, enemy, terrain, and troops available are always analyzed before selecting the method of attack.

h. The battalion seeks to conduct the attack as a single advance and assault that continues until the assigned objective is seized. The momentum of the attack must be maintained. When intermediate objectives must be seized, units strive to avoid halting. If there is no requirement to hold the objective, the battalion continues the attack, reorganizing on the move. If the objective is to be held, the unit will consolidate, reorganize, prepare to repel enemy counterattack, and continue the attack on order.

(1) *Intentions of the higher commander.* The overall plan of attack contained in paragraph 3a of the operations order (concept of operation) is an expression of the commander's intentions. Subordinate commanders require a full understanding of the purpose of the operations so that they may exercise initiative in continuing the attack without waiting for further orders.

(2) *Continuous reorganization.* All steps are taken to maintain the combat effectiveness of the unit. Whenever possible, this is done while on the move. To save time, actions that cannot be accomplished on the move are preplanned.

(3) *Supporting elements.*

(a) If contact with the enemy is lost, reconnaissance and security units, especially those with aircraft, are employed to regain contact.

(b) Combat support and combat service support elements are kept well forward in order to provide immediate assistance to the combat elements.

i. *Action To Be Taken When Enemy Uses Nuclear Weapons.*

(1) If the enemy employs nuclear weapons against the attacking force and a company or a major portion of it is destroyed, the commander maintains the momentum of the attack with all means at his disposal. If the unit affected is an attacking company, a reserve company should be committed to take over its mission. Survivors of the affected company may be attached to the committed reserve company or continue their mission to the extent possible until relieved. Upon relief, the company may be placed in reserve or, if it is no longer effective as a unit, its survivors may be attached to one of the units of the battalion. If more than one company is affected, it may be necessary to change the battalion mission, or to

employ brigade or division reserves to influence the situation.

(2) The enemy can be expected to exploit the effects of his nuclear weapons by attacking; therefore, consideration must be given to shifting forces toward threatened areas in order to provide maximum security, while still continuing the attack.

j. Action To Be Taken Against Counterattacks.

(1) In the event the enemy counterattacks with insufficient combat power to constitute a threat to the accomplishment of his mission, the battalion commander reports to brigade his intention to bypass the counterattack force and assigns the mission of blocking or destroying it to the reserve or to one of the attack elements. Reserve forces from higher echelons may be employed to destroy or contain the bypassed enemy force.

(2) If the counterattack force has sufficient combat power to constitute a threat to accomplishment of his mission, the battalion commander destroys or neutralizes it with nuclear and/or non-nuclear fires and/or reserves while still attempting to continue the attack toward the objective. If fires are not available or are not capable of eliminating the enemy threat, the commander may have to shift his attack to destroy the counterattacking force before continuing toward the objective.

(3) When the counterattacking force is too strong to be eliminated by the attacking force, the commander takes action to contain it, reports the situation to higher authority, and requests assistance.

k. Generally, the attack is planned and executed in three phases: the preparatory phase, the conduct phase, and the consolidation and reorganization phase. These phases will rarely apply to the battalion as a whole since one element may be conducting an attack while another element is consolidating and reorganizing.

4-14. Preparation for the Attack

a. During the preparatory phase, preliminary actions such as movement to assembly areas and resupply and refueling operations are completed.

b. If preparatory fires, ground or air, are to be used, usually they are initiated during this phase. Immediate damage and casualty assessment of nuclear and chemical strikes is made, and chemical detection and radiological survey parties of the CBR teams report the chemical hazard present and the radiation levels for comparison against estimated troop-safety requirements.

c. Intelligence activity, particularly ground and aerial surveillance, is intensified to detect the enemy's reaction to the preparatory fires, to movement of troops, and particularly to any feints, demonstrations, or other deceptive measures conducted as part of the division deception plan.

d. Troops move forward from assembly areas (into attack positions, if used), prepared to cross the line of departure at the prescribed time. Preparatory fires are exploited to cover this movement.

4-15. Conduct of the Attack—Dismounted

a. General. See paragraph 4-13.

b. Assembly Area to Line of Departure (LD). The tactical move from the assembly area to the LD is designed to facilitate deployment of the force. Maneuver elements deploy into initial combat formation, using various methods such as the approach march, or they may occupy an attack position where final preparations for the attack are completed. Elements of the base of fire not previously established are normally emplaced at this time. Integration of attachments is made in the assembly area or prior to arrival at the attack position. Movement to the LD is planned so that units move across the LD at the designated time. Movement from the attack position to the LD may be covered by a nonnuclear preparation, or fires may be withheld to gain surprise. If a nuclear preparation precedes the attack, units may remain behind (or in) the attack position until a tactical damage assessment has been completed to determine the results of the nuclear strike. Following the initiation of preparatory fires, when used, the assault echelon crosses the LD at the designated time. Times for units to cross the LD should be determined so as to facilitate arrival of units at the objective area in the desired order.

c. Line of Departure to Final Coordination Line.

(1) The movement from the LD to the objective is the advance in which base of fire elements attempt to gain fire superiority while the maneuver force moves to a position on the ground (final coordination line) where deployment may be completed in preparation for the assault.

(2) Preparatory fires continue as the assault elements advance toward the enemy positions. As targets appear, on-call supporting fires are requested by mortar or artillery FO moving with assault elements. The entire attack is characterized by a series of rapid advances and assaults, closely supported by fire. If armor elements are participating in the attack, tank and infantry elements operate as combined-arms teams to complement the capabilities and offset the limitations of each

force. During this phase of the attack, reconnaissance by fire may be used by tanks to develop the enemy situation if they are available and surprise is not sought.

(3) When enemy resistance is encountered, the situation is developed and attacking elements maneuver as necessary to destroy the enemy. Rifle companies remain dispersed until required to mass to overcome enemy resistance. When the requirement for concentration ceases, units again disperse.

(4) Attacking companies move toward their objectives by use of fire and maneuver. They do not stop or delay the attack to preserve general alignment or to rigidly adhere to the conceived plan of attack. When an attacking company is exposed to a flanking enemy counterattack, the battalion commander must be prepared to shift supporting fires and/or the reserve to neutralize the counterattack.

(5) Halts on intermediate objectives normally are avoided since this slows the attack and greatly increases vulnerability. Ideally, the maneuver force moves continuously in mass; that is, the entire force advances on the enemy without halting while the base of fire neutralizes the enemy's capability for interfering with the maneuver. The maneuver force must close on the objective at top speed in the shortest possible time with maximum combat power; the longer its exposure to enemy fire, the greater will be its loss. The combination of speed, multiple attacking elements, and all available supporting fires increases the closing shock of the maneuver force. When the maneuver elements employ fire and maneuver or fire and movement, commanders at all levels must take aggressive action to insure that movements are executed rapidly and that the entire force continues to advance on the enemy. Enemy resistance of insufficient strength to jeopardize the accomplishment of the mission is bypassed or contained with minimum force. The location of bypassed elements is reported to brigade. In the event the unit has been assigned a zone clearance mission, sufficient forces with adequate supporting fires are left to destroy the enemy force without slowing the momentum of the attack.

(6) Throughout the attack, units closely follow supporting fires. Supporting weapons displace by echelon to provide continuous support. Radiological monitors with attacking companies report contaminated areas so these areas can be bypassed or crossed rapidly by vehicles to reduce exposure to radiation.

(7) As the attack progresses, the commander shifts the weight of the attack to take advantage

of tactical success, to avoid known or suspected enemy strength, or to take advantage of more favorable routes of approach as they are uncovered. The commander shifts the weight of the attack primarily by shifting supporting fires or employing his reserve. However, through aggressive aerial and ground reconnaissance, he may uncover ideal or adverse terrain conditions in sufficient time to turn them to his advantage or to lessen their impact on his operation.

d. Final Coordination Line to the Objective.

(1) The purpose of the assault is to close with and capture or destroy the enemy. The assault begins when the maneuver force completes its deployment to the formation for the assault. At that time, supporting fires which inhibit movement of the assaulting force are shifted to the flanks and rear of the objective. As this is accomplished, the assault element increases the intensity of its fires in order to maintain fire superiority over the enemy.

(2) The commander prepares for the assault by concentrating supporting fires to neutralize or weaken the enemy prior to launching the assault. Assault units follow closely their supporting fires, deploy, and cross the final coordination line at the time supporting fires are shifted, usually on order of company commanders. The fire of assaulting units continues throughout the assault.

(3) The assault is a short, well-coordinated effort to overrun the objective. The action is characterized by aggressive employment of fire and maneuver and fire and movement to close with and kill or capture the enemy. Gaps in enemy defenses are exploited as they are detected and small strongpoints assaulted from the flanks and rear, if practicable. Massing of forces during the assault is restricted to the minimum necessary to seize the objective.

(4) The tank and infantry assault of an enemy position, in coordination with supporting fires, is designed to make maximum use of the capabilities of the tanks and infantry maneuver forces consistent with capabilities of the enemy force including his antiarmor capability, the terrain, and the volume of suppressive fires available to the attacking commander. Ideally, the attack should culminate in an assault with both tanks and infantry arriving on the objective simultaneously. This permits maximum utilization of the firepower and mobility of both forces by not causing either the tanks or infantry to halt or slow their movement awaiting the other's arrival.

(a) *Tanks and infantry assault in coordination.* As the tanks and infantry approach the objective, either on different axes or on the same

axis of advance, heavy supporting fires are placed on the enemy position. The tanks maintain their rate of advance and increase the volume of fire, saturating the objective with fire from machine-guns and main armament. Both elements attempt to arrive on the objective simultaneously without halting. As supporting artillery and mortar fires on the objective are shifted, fires of infantry and tank weapons maintain fire superiority. Companies and platoons use fire and maneuver, and riflemen use fire and movement to close with and destroy or capture the enemy. The shock effect of assaulting tanks and infantry is multiplied by rapid movement and heavy volume of fire throughout the assault; tanks continue to saturate the objective with fire, destroying enemy positions and weapons. As the assault units arrive at the far edge of the objective, fire is directed on enemy dispositions beyond the objective area. As soon as the objective is seized, the tanks and infantry move to positions dominating avenues of enemy approach into the position and prepare to repel counterattacks or to continue the attack.

(b) *Tanks support by fire.* Terrain, obstacles, strong antiarmor, defense, or timing may make it desirable for only infantry to participate in the assault initially. This is, however, the least desirable method of employing infantry and tanks. In this situation, the infantry move to the final coordination line under protection of supporting indirect fires and long-range tank fires. Tanks are used to support by fire initially; however, when their fires are masked by the advancing dismounted infantry or as soon as the obstacles can be overcome, (terrain and situation permitting), tanks displace forward rapidly to join the infantry on the objective to participate, if possible, in the final stages of the assault and consolidation and defense of the objective.

4-16. Conduct of the Attack—Mounted

a. General.

(1) *Armor and mechanized infantry teams and task forces.*

(a) Mechanized infantry and tank elements are coordinated by combining them into one mutually supporting formation. Mechanized infantry must be prepared to fight from their mechanized infantry vehicle. They are positioned in the formation according to the tactical situation. In determining the location of the mechanized infantry vehicles in the formation, the commander must consider the primary requirement for having the mechanized infantry readily available. He must also consider the vulnerability of the vehicle to enemy fire. The mechanized infantry vehicle provides flank and rear security to the maneu-

vering force during the attack by employing their vehicular-mounted machineguns.

1. When undue enemy interference is not anticipated, the mechanized infantry vehicles will follow closely behind the tanks.

2. Where hostile antitank fires are encountered, the location of the mechanized infantry vehicles with relation to the tanks will depend partially on the type and caliber of the hostile antitank weapons. If the enemy is equipped with only short-range antitank weapons, such as rocket launchers, the mechanized infantry vehicles may follow the tanks more closely than if the enemy were using long-range, high-velocity antitank weapons.

3. The distance between the tanks and mechanized infantry vehicles must not become so great that mutual support between the tanks and mechanized infantry is lost.

4. In terrain affording numerous defilade positions, the mechanized infantry may follow the tanks closely.

5. The mechanized infantry vehicles can follow the tanks closely during darkness or other periods of limited visibility.

(b) The rate of advance of mechanized infantry is based on the actions of the leading tank units.

1. When the tanks are advancing in mass, the following mounted mechanized infantry may advance in mass or by bounds. Mounted mechanized infantry elements moving by bounds stay behind the tanks and move forward rapidly from cover to cover as the advance of the tanks uncovers successive defilade positions.

2. When the tanks are employing fire and movement, mounted mechanized infantry advances by bounds as described above.

(2) Dismounted mechanized infantry.

(a) When mechanized infantry is required to dismount, tanks (if available) and the dismounted infantry operate sufficiently close together to provide mutual support. If the organization for combat includes armored elements, the infantry may move between tanks, or immediately in rear of them. As the advance progresses, the relative positions of tanks and infantry are adjusted according to the enemy resistance and the terrain. This permits close coordination and maximum mutual support but sacrifices speed, making the tanks more vulnerable to antitank fire.

(b) When terrain, obstacles, or enemy antitank weapons restrict or stop the movement of tanks that may be attached, but permit infantry to move forward, tanks may support by fire while the infantry advances. As conditions permit, the tanks

move forward, pass through the infantry, and lead the assault on the objective.

(c) The mechanized infantry vehicles follow close enough behind the dismounted infantry to be readily available when needed to continue the attack mounted or to assist in the consolidation of the objective. They may move forward by bounds, or follow closely the attacking force and augment the fires of the tanks and infantry with their vehicular weapons. Exposure to effective antiarmor fires is a major consideration in displacement of the mechanized infantry vehicles.

(3) *Tank and mechanized infantry teamwork.*

(a) Mounted mechanized infantry operations supported by armor elements are based on the combined-arms concept in which each arm contributes its capabilities to the combat power of the overall force. To weld the capabilities of infantry and tank units into one effort, the commander considers the following relationships between tanks and infantry in the advance to the assault.

(b) Whenever possible, tanks lead the attacking formation in order to take maximum advantage of their capability for mounted combat.

(c) It is desirable that the infantry remain mounted as long as possible so that—

1. Movements can be conducted at the speed of the tanks to rapidly close with and destroy the enemy.

2. The battlefield mobility of both elements of the tank and infantry team will be retained.

3. Casualties will be minimized in areas covered by small arms, mines, mortar, and artillery fire.

4. Artillery airburst can be employed over the attacking force if desired.

5. Some protection will be afforded against nuclear weapons.

6. The infantry can conserve energy to be better able to fight dismounted when needed.

(d) Infantry normally dismount when it is necessary for them to—

1. Breach or remove obstacles that are preventing the forward movement of the tanks.

2. Assist in the neutralization or destruction of antitank weapons that are delaying the forward movement of the tanks and mechanized infantry vehicles.

3. Lead an attack through heavily wooded areas or over very rough or broken terrain.

4. Lead an attack across defended rivers that cannot be crossed by mechanized infantry ve-

hicles or forded by tanks because of the enemy situation or other factors.

5. Take part in an attack through fortified areas or defended towns and villages that cannot be bypassed.

6. Assist the tanks' forward movement during conditions of low visibility and restricted fields of fire (darkness, fog, smoke, heavy woods, broken terrain, and similar conditions).

7. Participate in the assault and consolidation on the objective.

b. Assembly Area to Line of Departure. See paragraph 4-15b.

c. Line of Departure to Final Coordination Line. The advance to the assault is initiated from the LD and is conducted in a manner which minimizes casualties to the maneuver force while placing combat power in position to destroy the enemy. The battalion conducts the advance to the assault as a continuous rapid movement, through the enemy's defensive fires in minimum time. Where possible the assault is conducted in mass; however, enemy action may require the maneuver force to employ fire and maneuver and fire and movement. Throughout the advance to the assault, the commander supervises the execution of his plan and continues his estimate. He keeps abreast of the situation as it develops to determine if changes must be made in the scheme of maneuver or plan of fire support.

d. Final Coordination Line to the Objective. The desired goal in the assault is to bring the maximum combat power of tanks, mechanized infantry, and the base of fire to bear upon the enemy simultaneously and to destroy him as rapidly as possible with minimum casualties to friendly forces. The assault of a defended position by tanks and mechanized infantry in coordination with the base of fire may take one of three forms—

(1) *Tanks and dismounted mechanized infantry assault in coordination.*

(a) Regardless of the method of attack used to bring the force into the assault position, the assault is conducted as a coordinated effort. As the force approaches the objective, the objective is kept under heavy fire from the base of fire. The tanks and mechanized infantry vehicles maintain their rate of advance and increase the volume of fire on the objective. As the units approach the objective, the mechanized infantry quickly dismounts to participate in the assault in conjunction with the tanks. Fire from the base of fire (if used) is lifted as the lead elements near the objective. Ideally tanks lead but are joined by the dismounted infantry for the actual assault of the ob-

jective. Mortar and artillery fires are shifted to the flanks and far side of the objective. The local commander determines when and where the mechanized infantry will dismount, taking advantage of cover for the mechanized infantry vehicles so that maximum supporting fire can be provided from the mechanized infantry vehicle carrier mounted weapons while the infantry moves on foot. The units continue their assault to the far side of the objective. The infantry protects the tanks by engaging infantry-type targets, including individual antitank weapons and the killer teams. Coordination should be accomplished before the attack to insure infantry support of tank elements during the assault. Whenever possible, the vehicle mounted weapons of the mechanized infantry vehicles are used to support the assault until the fires are masked by advancing riflemen. The dismounted infantry use fire and movement to close with the enemy. The shock effect of assaulting tanks and infantry is multiplied by rapid movement and heavy volume of fire. As the tanks arrive at the far edge of the objective, fire is directed on the enemy positions beyond the objective area. During the assault of an objective located on high ground, care must be taken to acquire and destroy any enemy antitank and automatic weapons sited on the reverse slope. These weapons are normally positioned so as to engage tanks and dismounted infantry as they crest the hill.

(b) Once the assault has cleared the objective, the mechanized vehicles are moved forward to remount their squads for continuation of the attack. They should be moved forward under control to avoid random movement on the objective searching for their squads. Radios, messengers, arm-and-hand signals, and pyrotechnic devices may be employed to control movement of the mechanized infantry vehicles.

(2) *Tanks and mounted mechanized infantry assault in coordination.* In some situations, because of the nature of the terrain or of limited enemy resistance, it may be unnecessary to dismount the mechanized infantry. The decision to keep the infantry mounted is up to the local commander at the time and can rarely be preplanned. The mounted assault differs from the dismounted assault in the employment of supporting fires. In the mounted assault, integrated forces may assault the objective under cover of overhead artillery and mortar fire. Vehicle mounted and individual weapons are used to suppress enemy fire when overhead supporting fires have been shifted or are not used. Tanks and mounted mechanized infantry overrun the objective. If necessary, supporting fires may be shifted to isolate the objective, and

mechanized infantry as required, dismounts to mop up. See (4)(d) below for a discussion of when to dismount.

(3) *Tanks support dismounted mechanized infantry by fire.* Terrain or obstacles may make it impossible for tracked vehicles to join in the assault. In this situation, dismounted mechanized infantry will conduct the assault. Tanks support by fire, with full consideration given to the long-range and rapid rate of fire of the tank weapons and the precision and control with which these fires can be delivered. As soon as the situation permits, tanks will rejoin the mechanized infantry and, if appropriate, again lead in the attack.

(4) *Mechanized infantry assault mounted without tank support.*

(a) In some circumstances, the assault may be conducted with the mechanized infantry moving mounted all the way to the objective without armor support. This is possible after a nuclear strike or heavy conventional fires on the enemy position, or against hastily prepared and weak defensive positions.

(b) If the commander plans to move mounted all the way to the objective, he also selects a final coordination line short of this objective in the event enemy action forces dismounting the infantry sooner than intended.

(c) When the dismount area is on the objective, the mechanized infantry vehicles move rapidly to that area, possibly under artillery and mortar airburst fire, and employ vehicle mounted and individual weapons as suppressive fires when the artillery has shifted or lifted its fires. The mechanized infantry increases its speed in moving to dismount positions to overcome the loss of time in dismounting. When the vehicles reach the dismount area, supporting fires are shifted or lifted, and the infantry dismount immediately to neutralize enemy remaining on the objective. Vehicle-mounted weapons are used to cover the dismounting operation. The exact timing of the shifting of fires is of great importance. To facilitate coordination, the last rounds of the supporting fires may be colored smoke to indicate the time to dismount.

(d) Where to dismount mechanized infantry is a command decision and is accomplished at the time, place, and manner required to insure seizure of the objective. It may be on the objective, at the FCL, or before reaching the FCL. If mechanized infantry remains mounted too long, the mounted squad may be unduly exposed to group destruction by short-range antitank weapons. Conversely, dismounting too early may slow the attack or allow the enemy to employ

massed antipersonnel fires against the exposed infantry. Remaining mounted as long as possible conserves the energy of the infantryman for the assault.

4-17. Consolidation and Reorganization

a. General. The actual occupation of the objective is the critical stage of the attack. Control is most difficult and it is the time when an aggressive enemy delivers a carefully planned and coordinated counterattack, supported by all available fires. When possible, the seizure of the objective should be followed by an immediate continuation of the attack. In nuclear warfare, a rapid move to dispersed locations from which the unit can dominate the objective will avoid presenting a lucrative nuclear target. In many situations, small units will be required to hold an objective. In these cases, consolidation of the objective is required and the unit should be reorganized as required.

b. Consolidation. Consolidation pertains to all measures taken to use a newly captured position or terrain feature against possible enemy counterattack. The action may vary from a rapid redistribution of forces and security elements on the objective to the organization and detailed improvement of the position for defense. When consolidation is anticipated, many of the actions can be preplanned and announced initially in the attack order. These instructions may be changed or supplemented by fragmentary orders as the attack progresses. Actions to be taken include—

(1) *Security.* Observation or listening posts are established; and, if required, patrolling is initiated.

(2) *Reconnaissance.* In addition to the reconnaissance efforts to effect security, commanders take steps to reconnoiter in anticipation of immediate and future missions.

(3) *Positioning.* Tanks and antitank weapons are positioned on armor avenues of approach. Infantry cover likely infantry avenues of approach and provide security for the tanks if appropriate. Combat support and combat service support elements are relocated if necessary.

(4) *Fire planning.* While fire planning is continuous in an operation, specific actions may be preplanned and executed for a consolidation. Registration is completed when possible, and integrated fire plans are prepared to support the consolidation. If the time for the continuation of the attack is not known, tank commanders begin preparation of individual range cards.

c. Reorganization. Reorganization includes all measures taken to maintain the combat effectiveness of the unit. Reorganization is continuous throughout the attack, but halts for consolidation offer opportunities to accomplish those activities that are difficult to do on the move. Actions to be taken include—

(1) *Reports.* Units report their location and status to assist the next higher commander in his planning for subsequent operations.

(2) *Casualties.* Casualties are replaced as soon as possible or men are reassigned within the unit to cover the loss of key personnel.

(3) *Evacuation.* Plans made before the attack for the evacuation of casualties, prisoners of war, and damaged equipment are implemented.

(4) *Supply.* Ammunition and equipment are redistributed within the unit if necessary. Basic and prescribed loads of supply are reconstituted as time permits.

(5) *Control.* New communication plans are made or old ones revised as required. Command and control facilities are located to control the consolidation and anticipated future actions.

Section V. MANEUVER IN THE OFFENSE

4-18. General

a. In offensive operations, attacking forces are maneuvered to gain an advantage over the enemy, to close with him, and to destroy him. The commander may orient his attack on the front, flank, or rear of the enemy.

b. A higher commander seldom directs the form of maneuver to be adopted by the battalion; however, the mission assigned, including tasks derived from it, coupled with the requirement for secrecy may impose limitations in time and direction of attack, thus indicating a form of maneuver most

likely to achieve success. In addition, the mission of the battalion, characteristics of the area of operations, disposition of opposing forces, and the relative combat power of the opposing forces are analyzed to determine the best form of maneuver to be adopted. Normally, terrain, time available, friendly dispositions, ability to support the attack, and the enemy situation are the principal factors in determining the form of maneuver. The distinction of the forms of maneuver employed by the battalion—whether penetration, frontal attack, or envelopment—exists primarily in the intent of the

battalion commander, since his subordinate units may use all the forms of maneuver.

c. Airmobile operations which place forces on the enemy's flanks or in his rear can be used during all forms of maneuver.

4-19. Penetration

a. General.

(1) In the penetration, the main attack passes through the enemy's principal defensive position with the purpose of dividing and destroying the continuity of the enemy force, and of defeating it in detail.

(2) A successful penetration requires a concentration of superior combat power at the point selected for breaching the enemy's defenses. See figure 4-1.

(3) If sufficient combat power is available, multiple penetrations may be effected against a weak enemy. In such cases, attacking forces converge on a single deep objective or secure independent objectives deep in the enemy's rear. A double penetration may also be used against a small but strong defensive position. If it becomes impracticable to sustain more than one penetration, the one showing the greatest possibility for success should be exploited. (See fig 4-2.) The infantry battalion will seldom execute a double penetration, but it may participate in one as part of a larger force.

b. Basic Considerations.

(1) A penetration is normally made when enemy flanks are unassailable or when time does not permit selection of another form of maneuver.

(2) A penetration is favored when the enemy is overextended, when weak spots in his position are detected, when terrain and observation are favorable, and/or when strong fire support (especially nuclear) is available.

(3) The penetration of a well-organized position requires a preponderance of combat power to permit continued momentum of the attack. The attack should move rapidly to destroy the continuity of the defense since, if it is slowed or delayed, the enemy will be afforded time to react. If the rupture is not made sharply and objectives are not secured promptly, the penetration is likely to resemble a frontal attack. This may result in high casualties and permit the enemy to fall back intact, thus avoiding destruction.

(4) Selection of the location for the penetration is based on the following considerations—

(a) *Terrain.* Terrain must support the mo-

bility of the battalion. Good observation and fields of fire are necessary.

(b) *Strength and depth of the enemy position.* Ideally, the location chosen should be lightly defended to permit early penetration.

(c) *Maneuver space.* Lateral movement should not be restricted.

(d) *Distance to the objective.* A short, direct route is desirable.

(e) *Surprise.* An area that affords rapid and decisive results should be selected.

(f) *Plans of the brigade.* The location of the penetration must be compatible with brigade plans.

(5) The main attack is made on a relatively narrow front and is directed toward the decisive objective.

(6) The width and depth of the penetration depends on the depth of the enemy position and the combat power available to the battalion. The wider the penetration, the more difficult it is for the enemy to close; however, greater resources are required to accomplish it. The deeper the penetration, the more effective the "rolling up" action against the hostile flanks and the more difficult it is for the enemy to reestablish his defense by withdrawing to a new location; however, it is easier for the enemy to close such a penetration.

(7) Normally, the battalion commander will assign intermediate objectives to the main attack only if they are essential to the accomplishment of his mission. Objectives are normally assigned to supporting attacks to insure adequate width in the area of rupture, to protect the flanks, or to prevent the enemy force from disengaging.

(8) Controls imposed by the battalion for a penetration usually include assembly areas for major subordinate units, a line of departure, time of attack, zone of action and/or axis (or axes) of advance, and objective.

c. Conduct.

(1) Following preparatory fires, assault units attack through the enemy's defensive positions. Supporting attacks may be used to neutralize enemy fire support means and command and control facilities or to secure terrain that blocks movement of the enemy's reserve or promotes continuous movement of the attack.

(2) As the attack progresses, the units conducting supporting attacks secure the flanks of the main attack or widen the gap. Reserves exploit success or assist the main attack. Enemy counterattacks are engaged by the reserve and/or supporting fires.

(3) When the attack breaks through the main

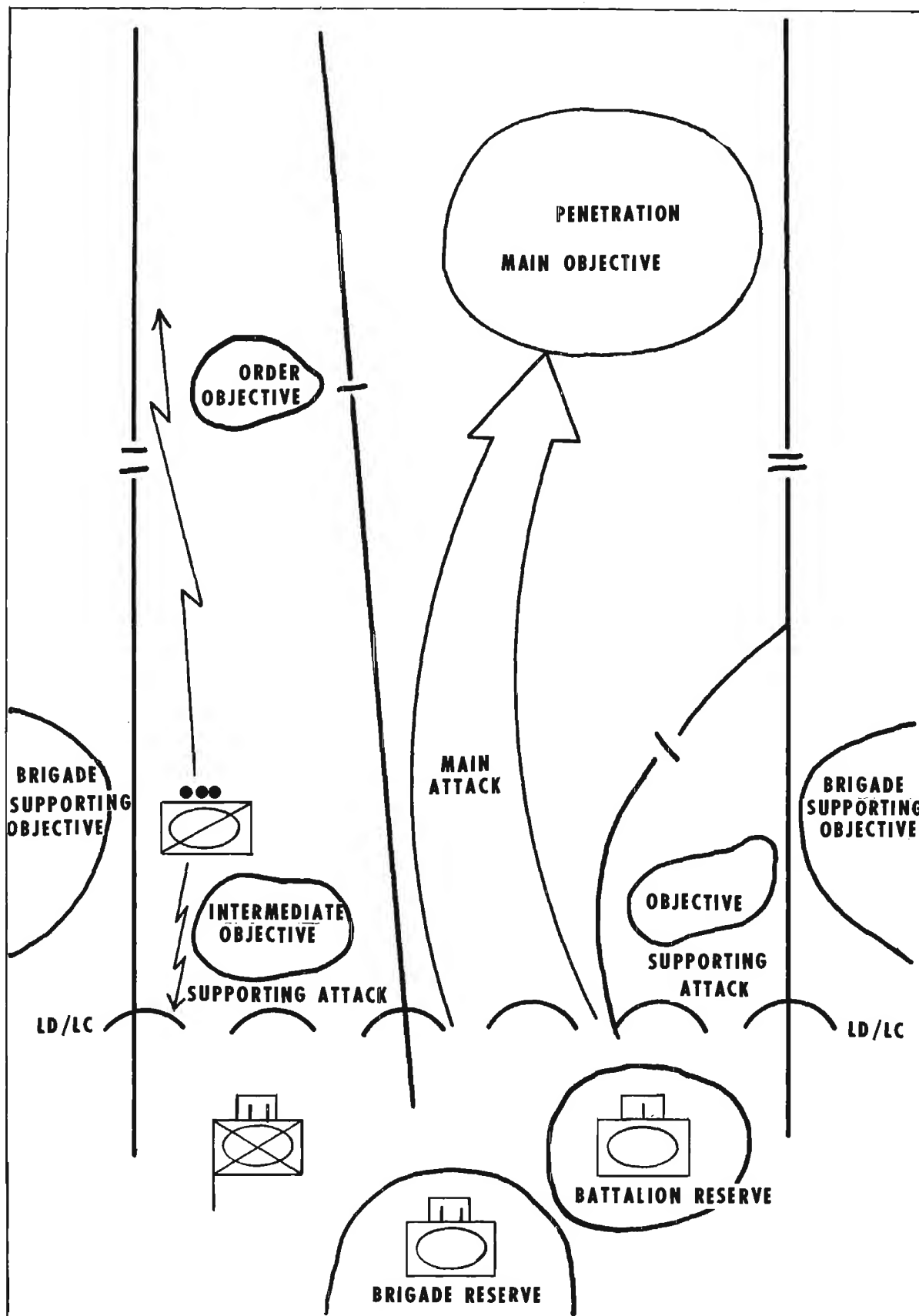


Figure 4-1. Battalion task force making single penetration as brigade main attack element.

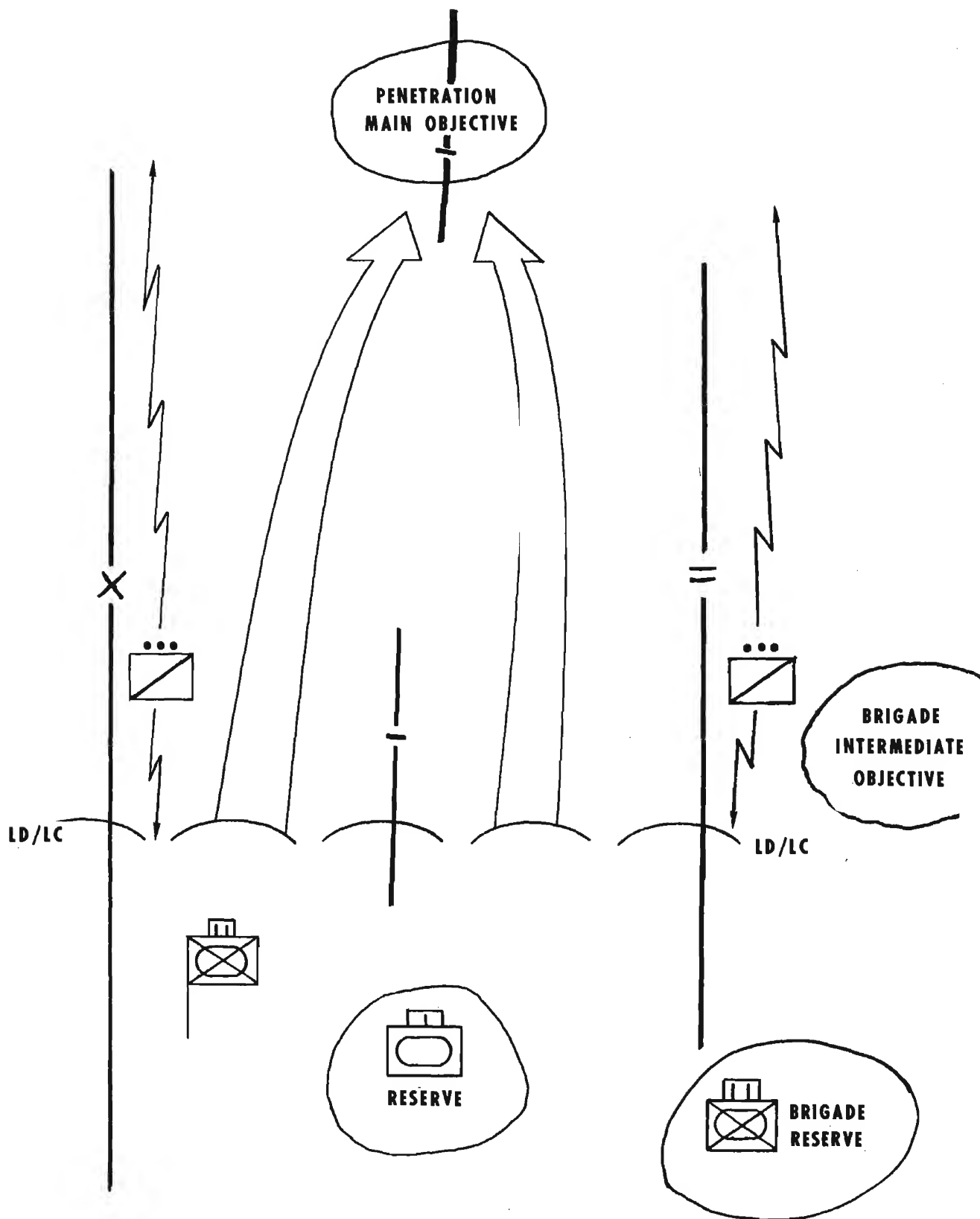


Figure 4-2. Battalion task force making a multiple penetration as brigade main attack element.

enemy defenses, it increases its speed and momentum to overrun or secure the penetration objective. The main attack forces may be passed through or reinforced by reserves to maintain momentum. When the reserve is committed, another is constituted or designated as soon as possible.

(4) Once the penetration objective is seized, the battalion may receive the mission to exploit or to destroy enemy installations or to destroy units attempting to escape. Contained or isolated enemy units are normally reduced by reserves from higher echelons or by fire. Security forces must be promptly deployed to detect and delay enemy reaction to the attack.

(5) All efforts are devoted to maintain the momentum of the attack throughout the conduct of the penetration.

d. Fire Support.

(1) The penetration normally is preceded by preparatory fire to neutralize enemy positions, to limit enemy ability to react against the attack, and to cover the movement of attacking units.

(2) Nuclear weapons contribute to the effectiveness of fire support; however, effects of nuclear weapons must be considered in relation to the scheme of maneuver. In certain situations, it is preferable to use these weapons on the flanks rather than in the area of the main attack.

(3) Use of nonpersistent-effect chemical agents provides a means of expediting rupture of the position since they increase friendly combat superiority in the area without producing obstacles.

(4) Fires are planned to widen the shoulders of the penetration, to neutralize enemy efforts to hold or force the shoulders of the penetration, to neutralize enemy reserves, to prevent movement of enemy forces into or out of the area of operations, and to destroy any target which seriously threatens the accomplishment of the mission.

4-20. Frontal Attack

a. General.

(1) The frontal attack (fig 4-3), using the most direct route, strikes the enemy all along his front. It is employed to overrun and destroy or capture a weakened enemy in position, or to fix an enemy force in position to support another form of maneuver. The battalion normally conducts a frontal attack as part of a larger force.

(2) Although the frontal attack strikes along the enemy's entire front within the zone of the attacking force, it does not require that all combat forces be employed in line or that all combat forces conduct a frontal attack. During a frontal

attack, the commander seeks to create or take advantage of conditions that will permit a penetration or envelopment of the enemy position. Companies attempt to seize their objectives from a direction other than the front, terrain and enemy situation permitting.

(3) A reserve is retained to permit redistribution of forces and to take advantage of changes in the tactical situation.

b. Basic Considerations.

(1) The frontal attack is favored against a weak or disorganized enemy, when the situation is not fully developed, when the attacker has overwhelming combat power, when the time and situation require immediate reaction to enemy action, or when the mission is to fix the enemy in position, deceive him, or assist the main attack.

(2) Frontal attacks, unless in overwhelming strength, are seldom decisive; consequently, their adoption as a main attack rather than a more decisive and less costly form of maneuver is seldom justified and should not be used except under the conditions noted above and in (3) below.

(3) The frontal attack is commonly employed in the exploitation, by the enveloping force in an envelopment, by the fixing force in a supporting attack, in a reconnaissance in force, by a counter-attacking force, and by the turning force in a turning movement.

4-21. Envelopment

a. General. In the envelopment (fig. 4-4), the enveloping force attempts to avoid the enemy's main defensive strength by passing around or over the enemy's principal defensive positions to seize objectives in his rear to cut his escape routes, to disrupt his communications and support, and to destroy him by attack from the flank or rear. Supporting attacks hold the enemy in position during the advance of the enveloping attack. The envelopment forces the enemy to fight in two or more directions to meet the converging attacks.

b. Basic Considerations.

(1) Ground envelopment requires that the enemy have an assailable flank, or that an assailable flank be created by massed nonnuclear or nuclear fires, or that the enemy dispositions permit infiltration. Aerial envelopment requires suppression of enemy air defense fires or that enemy dispositions and capabilities be unable to materially interfere with the flight of the airmobile or airborne force.

(2) The battalion may use the envelopment as the form of maneuver for its own attack or may take part in an envelopment being made by a

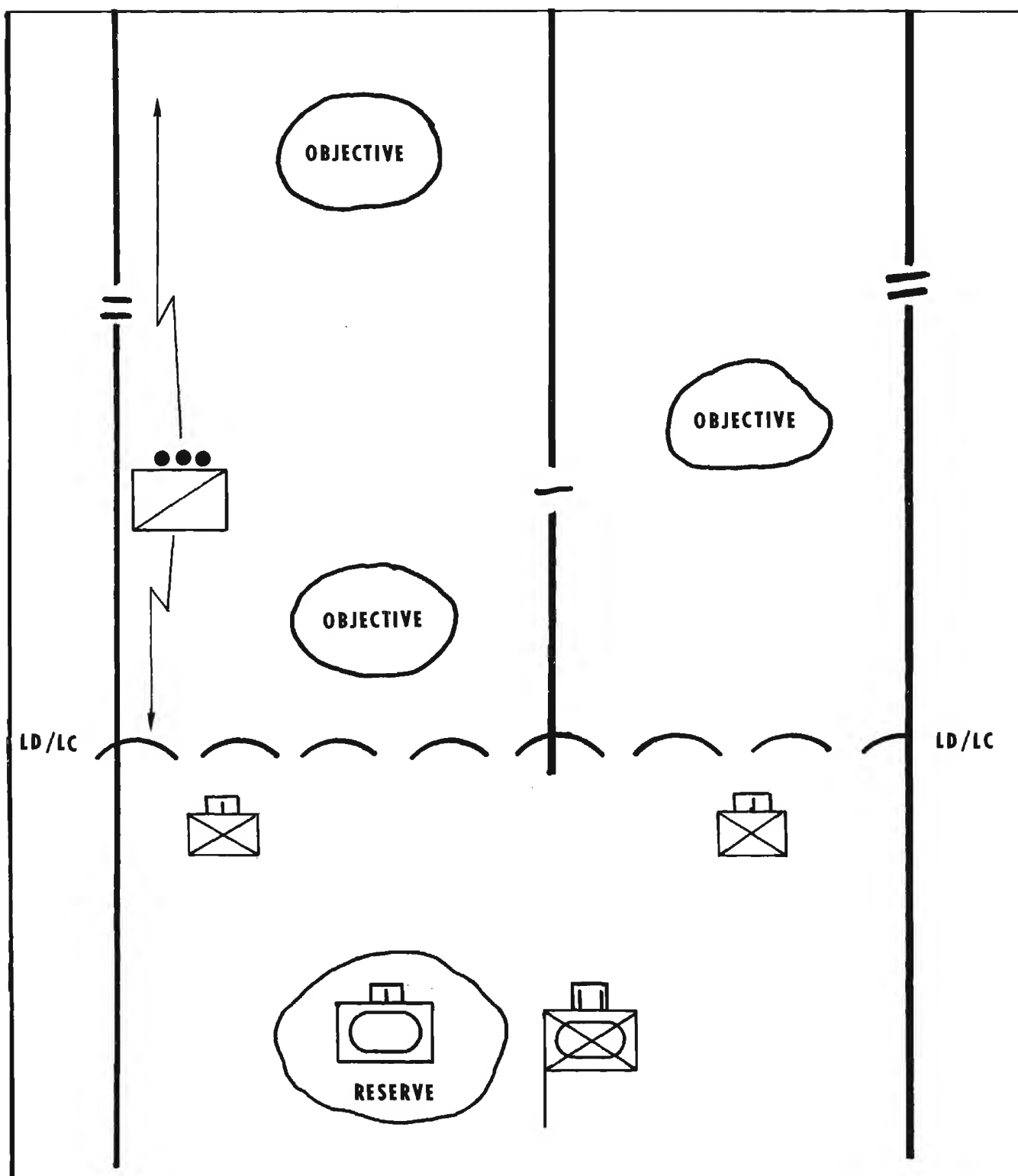


Figure 4-3. Battalion task force conducting a frontal attack.

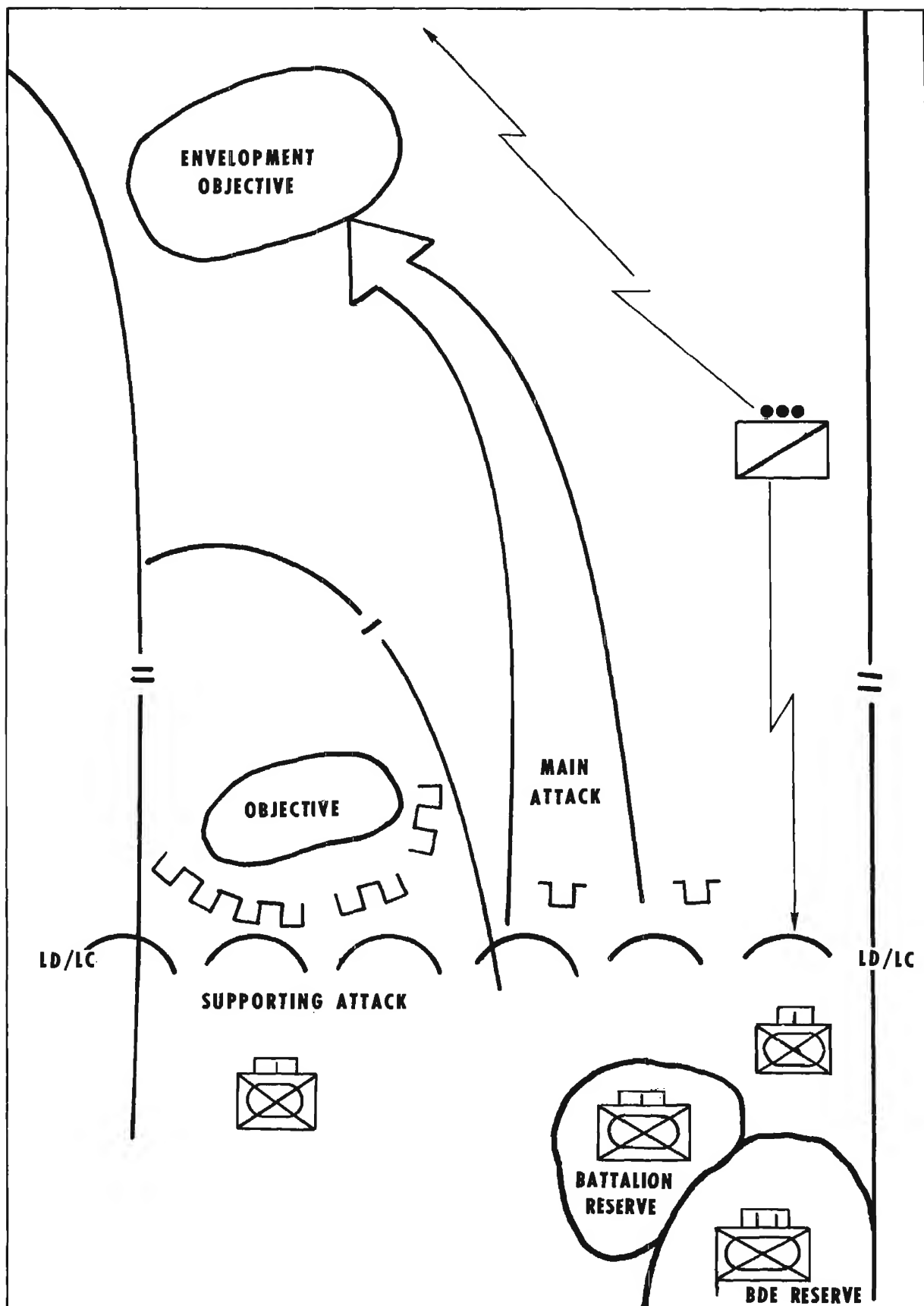


Figure 4-4. Battalion task force conducting an envelopment.

larger force. In the first instance, one or more companies of the battalion make the fixing attack while unengaged units of the battalion pass around the enemy's flank to seize objectives in the rear. When part of a larger unit's envelopment, the battalion may be given the encircling role or the supporting role of fixing the enemy in place.

(3) Envelopments require an appropriate balance of forces for the main and supporting effort. Frequently, the forces holding the enemy in position are economy-of-force elements, with greater combat power allocated the enveloping force. The holding force must, however, have sufficient combat power to keep the enemy fully engaged during movement of the enveloping force.

(4) Airmobile and airborne forces may be assigned the mission of seizing or destroying objectives to the rear of the enemy; however, if the enemy is defending in depth, such forces may not choose to land directly on objectives. In most cases, they should make their landings in undefended areas from which they attack to seize their objectives.

(5) If the enemy attempts to cut off the enveloping force or extend his flank beyond it, the battalion commander may elect to penetrate the enemy's overextended front. An attempt to flank the enemy's extension may lead to a dangerous separation of the enveloping force from the supporting attack.

(6) The battalion commander is alert for opportunities to exploit success with his reserve. These opportunities may be either in the area of the enveloping or supporting attack. When the reserve is committed, another is constituted as soon as possible.

(7) Minimum control measures are assigned to the enveloping force. The use of a zone of action may simplify control and coordination with an adjacent supporting attack. In some situations, an axis of advance may be necessary to implement the commander's scheme of maneuver.

c. Conduct.

(1) The enveloping force moves rapidly into the attack. Diversionary actions may be used to mask the noise and direction of movement.

(2) Attacks may be launched simultaneously or the time of the supporting and enveloping attack may be staggered; supporting attacks may be launched first to increase deception.

(3) Preparatory fires are not always fired in support of the enveloping force due to the need for secrecy, limited targets, or the inability of the enemy to impede the attack. If fired, a preparation is normally short and intense. The supporting

attack may or may not be preceded by a preparation.

(4) The enveloping force moves rapidly and directly to its objective, bypassing any enemy force that might delay it. These bypassed forces are reduced by fire or neutralized by other forces. Security forces are utilized to protect the flanks of the enveloping unit.

(5) Supporting attacks and fires fix the enemy in position and hinder his employment of reserves against the enveloping force. Infiltration of units may be used to disrupt enemy fire support or command and control elements, to block movement of enemy reserves, or to secure terrain to assist the enveloping force.

(6) The reserve normally follows the main attack; however, the battalion commander must be prepared to capitalize on success, be it from the supporting or enveloping attack.

d. Variations.

(1) *Double envelopment.* In the double envelopment, the attacker seeks to pass simultaneously around both flanks of the enemy. The attacking force must have superior combat power and mobility. Precise coordination and timing are required. Deficiency in any of these factors may subject the attacking unit to defeat in detail.

(2) *Turning movement.* In the turning movement, the attacking force seeks to pass around the enemy, avoiding his main forces, to secure an objective deep in the enemy's rear. The purpose of this maneuver is to force the enemy to abandon his position or divert major forces to meet the threat. He is then destroyed at a time or place of the attacker's choosing. A supporting attack may be required to fix the enemy; however, a turning movement need not always be accompanied by a supporting attack. Since the force executing the turning movement is usually out of supporting distance of other elements of the force, it must be sufficiently mobile and possess adequate combat power to operate independently. Mobility superior to the enemy, secrecy, and deception enhance the opportunity for success.

(3) *Encirclement.* The encirclement offers the greatest possibility for fixing the enemy in position and permits his systematic capture or destruction. The encirclement is a difficult maneuver to execute because it requires the executing force to have a numerical superiority and mobility much greater than is normally enjoyed to maximize the element of surprise. Airmobile forces enhance the probability of success. In the conduct of the encirclement, it is preferable to occupy the entire line of encirclement simultaneously; however, if this is not possible, the most likely escape routes are blocked first.

Section VI. MOVEMENT TO CONTACT

4-22. General

a. A movement to contact is an offensive operation to gain initial contact with the enemy or to regain lost contact. Its purpose is the early development of the situation to provide an advantage prior to decisive engagement. The movement may be conducted on a broad front. It may take the form of an administrative march when no enemy interference except by air is anticipated, a tactical column when contact is improbable, or an approach march when contact is expected or imminent.

b. Security is a critical consideration in the movement to contact. It is enhanced by the formation adopted, by early development of the situation, and by retaining the bulk of the battalion's combat power uncommitted and readily available for rapid employment. When available, tactical air may be used to provide column cover.

c. The commander exploits every collection means and agency at his disposal to secure information of the enemy, to prevent surprise, to acquire target information, and to gain a maneuver advantage.

d. The battalion may conduct a movement to contact as part of a larger force or, when assigned adequate forces, in an independent operation.

e. The movement to contact must be carefully planned, but commanders of the rifle companies should be given maximum authority and freedom of action to execute the advance rapidly and aggressively. Phase lines, checkpoints, and axes of advance are employed as control measures.

f. Air defense must be considered during the movement to contact. All organic air defense weapons should be interspersed in the march column with emphasis on the lead and rear elements and application of mutual support requirements. Air guards must be appointed, and maximum use must be made of organic non-air defense automatic and individual weapons. Attached air defense weapons are interspersed within the column and at critical points to provide uninterrupted movement of the column. Provision must be made for employment of ADA weapons, such as Chaparral, that cannot be fired while moving. Normally these weapons are stationed at critical points along the march route or, if in a column, they leave the column and stop to engage targets.

4-23. Meeting Engagement

a. In the movement to contact, the battalion will frequently participate in a meeting engagement.

In meeting engagements the battalion, often not completely deployed for combat, must engage an enemy about which it has inadequate intelligence.

b. In each meeting engagement, the commander is confronted with three possible courses of action—

(1) Attack piecemeal from march formation as fast as units can be brought into battle.

(2) Reconnoiter and contain the enemy force and defer decisive action until the bulk of his force can be committed in a coordinated operation (either offensively or defensively).

(3) Break contact and avoid or bypass the enemy force.

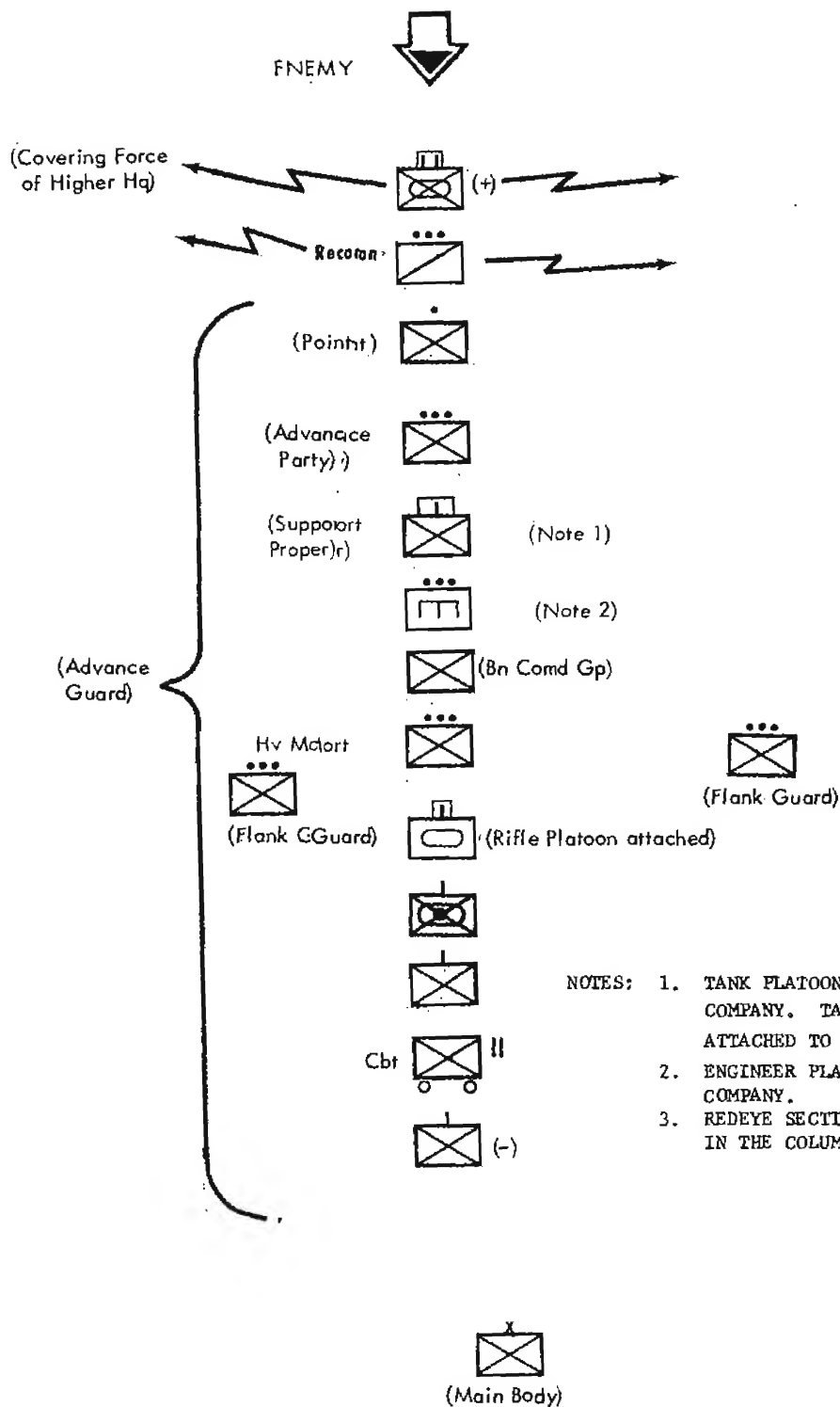
c. The primary tasks involved in a meeting engagement are to seize and retain the initiative and to develop the situation. Security elements are usually the first to contact the enemy which may be either in position or moving. When the enemy is encountered, units are committed to action from march formation and deploy quickly to develop the situation. If possible, attacks are directed against the enemy's flank to achieve surprise and to determine the front and depth of the enemy position when static, or the strength and disposition of his forces when moving. Frontal attacks are avoided except to hold the enemy in place. Once the situation is developed, the commander may continue to attack until the enemy is destroyed, bypass the enemy, or, if a superior force is encountered, defend until such time as additional forces are available to continue the attack or break contact and avoid or bypass the enemy force. Higher and adjacent headquarters must be advised of enemy contact and the commanders' plan of action. Commanders must recognize changes in the situation promptly and act accordingly.

d. The action ceases to be a meeting engagement when the enemy situation has been developed and the commander has undertaken one of the courses of action available to him.

4-24. Approach March

The battalion, when conducting a movement to contact and when contact with the enemy is imminent, will use the approach march formation.

a. *Organization for the Approach March.* Except when designated as a covering force, organization of the battalion for the approach march is essentially the same for the battalion as the advance guard of a larger force or when operating independently. This organization provides for three primary components: advance guard, flank and rear guard, and main body (fig 4-5).



- NOTES: 1. TANK PLATOON IS ATTACHED TO LEAD COMPANY. TANKS MAY BE FURTHER ATTACHED TO THE ADVANCE PARTY.
2. ENGINEER PLATOON SUPPORT TO LEAD COMPANY.
3. REDEYE SECTION IS INTERSPERSED IN THE COLUMN.

Figure 4-5. Dismounted battalion task force in approach march as the advance guard of a larger force.

(1) *Advance guard.*

(a) The advance guard operates ahead of the main body to develop the enemy situation, to provide the uninterrupted advance of the main body, to protect the main body from surprise, and to cover the deployment of the main body if it is committed to action. When the battalion is the leading element (exclusive of the covering force) of a larger force, it may be designated as the advance guard. When the battalion marches alone, the commander normally designates a reinforced rifle company as the advance guard.

(b) The advance guard provides security elements to its front to maintain contact with the covering force and to operate in the area between the covering force and the advance guard (when appropriate). It provides its own flank and rear security.

(2) *Flank guard and rear guard.*

(a) *Flank guards.* In an approach march where contact with the enemy is imminent, flank guards are designated. They normally are provided by the main body and operate in the area from the rear of the advance guard to the front of the rear guard to protect the flank of the main body.

(b) *Rear guard.* A rear guard, operating under battalion control, is also normally provided by the main body. It follows and protects the main body from enemy action from the rear.

(3) *Main body.* The main body, when the battalion executes a movement to contact, comprises the bulk of the battalion forces. Prior to movement, it is organized for combat with units positioned to be employed quickly once enemy contact is made. The battalion commander avoids deployment of the main body until the strength of the enemy forces a coordinated attack. The commitment is calculated to provide tactical advantages with respect to terrain, time, and relative combat power.

b. *Formations for the Approach March.* The battalion may conduct an approach march employing single or multiple column formations. Imminence of enemy contact, knowledge of enemy strength and dispositions, terrain, and required speed of movement largely determine the formation to be employed. For additional guidance concerning the position of the trains, class III resupply, maintenance, and evacuation in a tank-heavy or infantry-heavy mechanized infantry battalion task force, see FM 17-1.

(1) *Single-column formation—mechanized infantry battalion.*

(a) When contact is imminent but exact enemy dispositions have not been located and time

is not critical, the battalion commander may elect, for greater security, to retain the bulk of his force in reserve and use only a single column (fig 4-6) in the approach march. The disadvantage of the single column is that it permits the enemy to achieve maximum delay with minimum force.

(b) In the single-column formation, the reconnaissance platoon will normally be employed forward of the battalion in the approach march. The platoon is used to locate enemy dispositions and reconnoiter routes or zones over which the battalion is to advance. If a covering force is employed forward of the battalion, the platoon maintains contact with that force, if practicable. Once the approximate strength and location of the enemy positions have been determined, the battalion deploys for combat. The reconnaissance platoon may then be moved to provide flank security for the battalion or screen intervals between attacking elements.

(c) The lead company in the single column is designated as the advance guard. This company, in conjunction with the reconnaissance platoon, facilitates the advance by removing obstacles, repairing roads and bridges if essential to continued movement, and covering the deployment of the main body when it is committed to action.

(d) When sufficient trafficable routes are available and the battalion commander desires a wider band of security to the front, he may organize two reinforced platoons into advance parties to move on parallel routes. Then, if one route is blocked by the enemy or is otherwise unsuitable for movement, the remainder of the battalion (which is normally moved in single column) may shift to the other route. Movement is made on roads or cross-country as required.

(e) The organization of the battalion column in an approach march varies with the situation. Several general rules of organization normally apply.

1. Tank and mechanized infantry units are cross-attached whenever possible. Tanks normally lead the point unless there is a requirement for dismounted security.

2. The command group is placed well forward in the column.

3. Supporting engineers usually accompany the lead element to determine route conditions and assist in the passage of obstacles. Frequently, an armored-vehicle-launched bridge is provided.

4. Mortars are usually well forward in the column to provide support for lead elements.

5. The antitank platoon is usually employed well forward with elements interspersed in

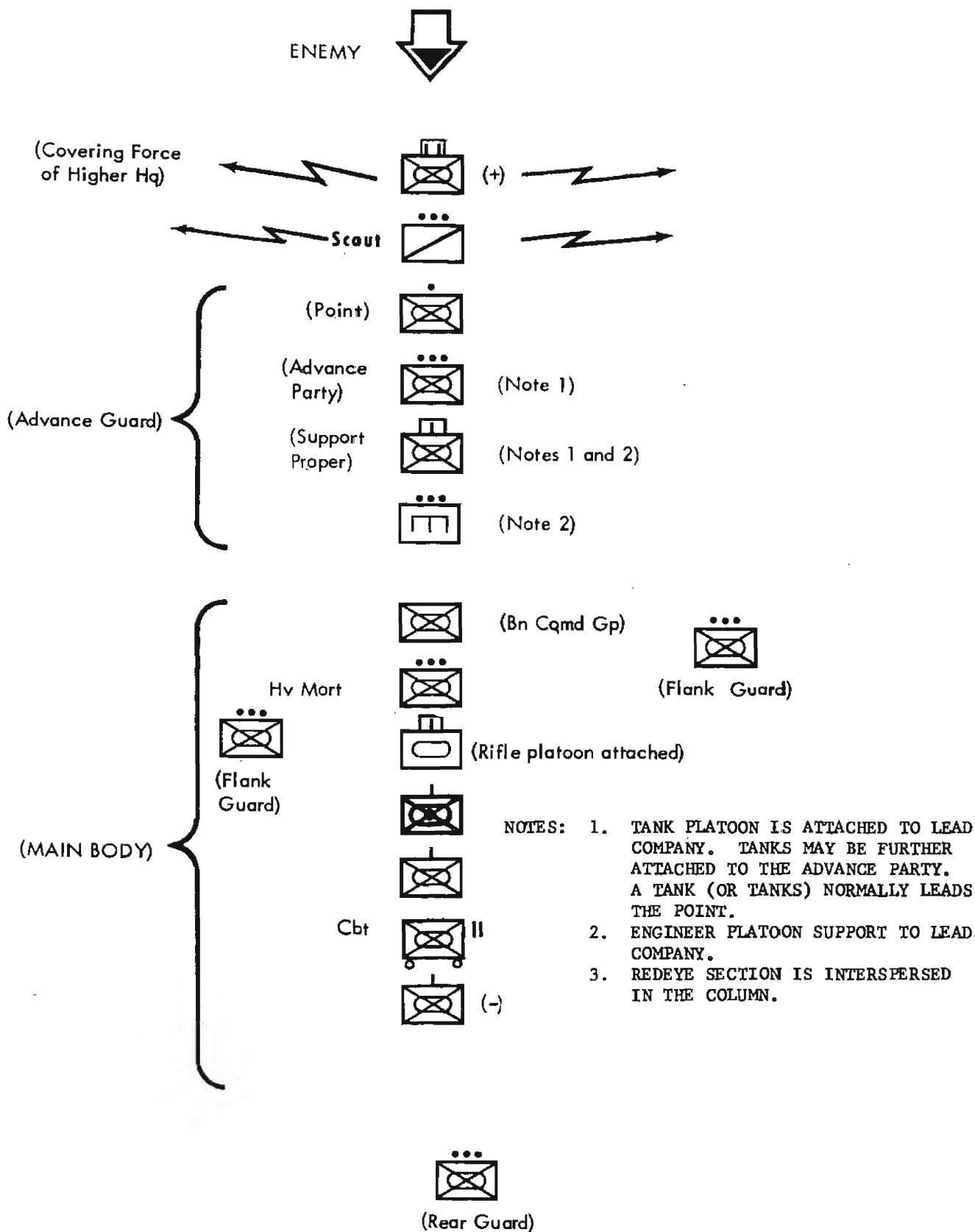
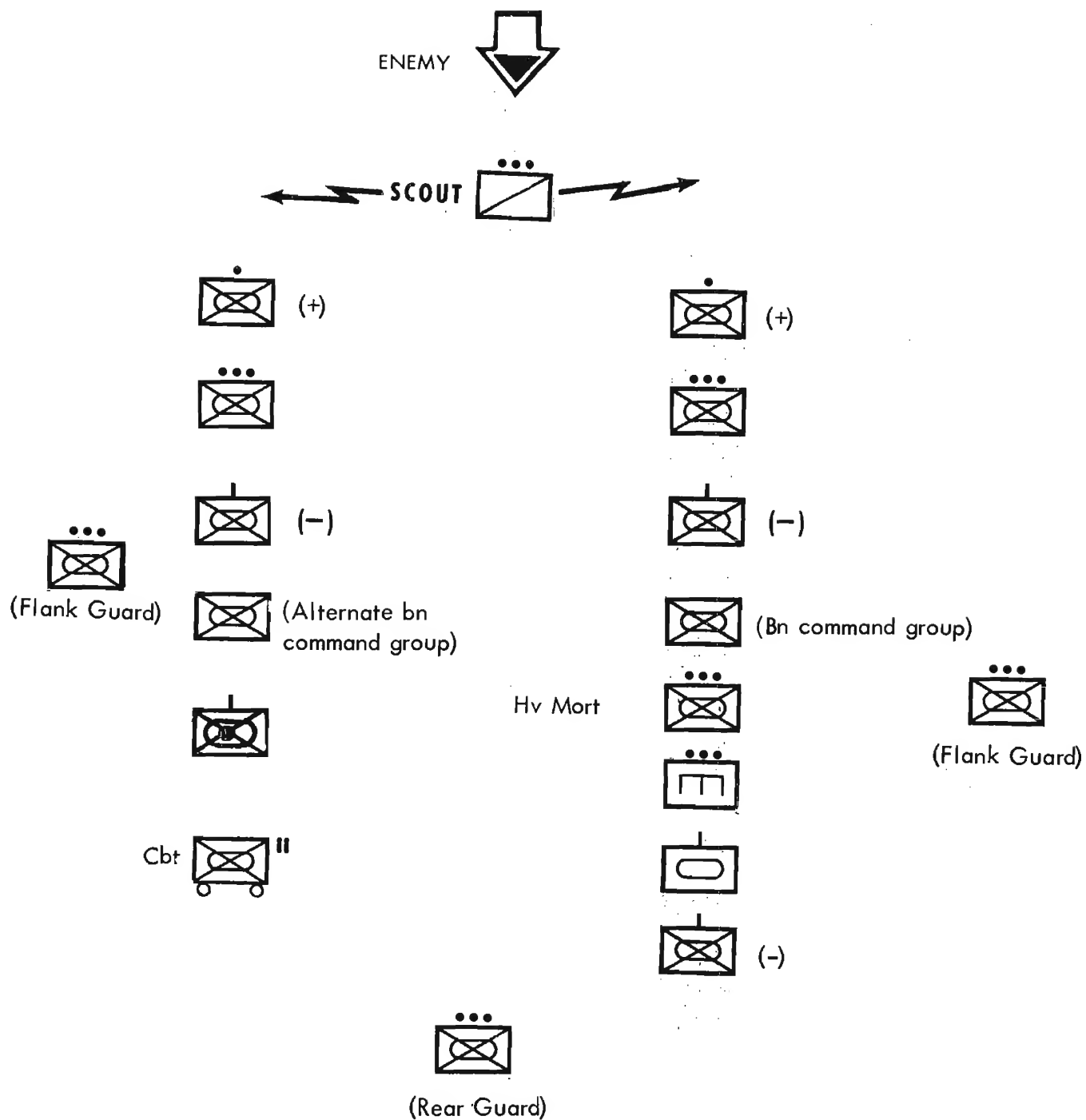


Figure 4-6. Mechanized infantry battalion task force in approach march, single column.



- NOTES: 1. A TANK PLATOON MAY BE ATTACHED TO EACH OF THE LEADING COMPANIES.
2. REDEYE SECTION IS INTERSPERSED IN THE COLUMNS.

Figure 4-7. Mechanized infantry battalion task force in approach march, parallel columns.

the column. A squad(s) may be attached to the lead company and to flank and rear security elements.

6. The column should be organized for combat with attachments which would be made later in the event of a meeting engagement accomplished prior to beginning the approach march. Change in the task organization can be made, if required, after contact with the enemy has been made.

7. If artillery is available, it is located well forward to provide responsive fire support.

8. Mechanized flamethrowers are kept well forward.

9. Provisions should be made for Army aviation and Air Force support.

(2) *Parallel-columns formation—mechanized infantry battalion.* When the approach march requires greater speed than is afforded in a single-column formation, when wider deployment is desired, or when reinforcement would extend the column to an undesirable length, the mechanized infantry battalion may be organized in parallel columns (fig 4-7). This type formation facilitates control and presents multiple threats to the enemy. The formation normally is organized as follows:

(a) The command group moves in the column where it can best influence the overall action. An alternate command group under the executive officer or S3 may be formed to move with the other column.

(b) Engineer elements and antitank support are provided for each column.

(c) Artillery elements normally march in each column. When only one artillery battery is available, it marches in one column and the battalion heavy mortars in the other.

(d) Parallel columns normally move within supporting distance of each other and contact is maintained between columns. When columns are widely separated and contact cannot readily be maintained between columns, separate flank guards may be established for and controlled by each column.

(3) *Single or parallel columns—dismounted battalion.* The formations outlined in the paragraphs above generally apply to the dismounted infantry battalion. However, since the reaction time of dismounted units is considerably slower than that of mounted units, more warning time from security elements is required. To enhance security, security elements are motorized or mechanized, if possible, and employed at a greater dis-

tance from the main body. When dismounted infantry units move in multiple columns, the columns are normally not as widely separated as with mounted units and are normally kept within mutually supporting distances to reduce the requirement for security between columns and to permit rapid commitment if required to overcome an engaged enemy.

c. Conduct.

(1) Every effort is made to sustain an uninterrupted movement. All-round security is essential and the bulk of combat power is kept uncommitted during movement to permit rapid employment upon contact.

(2) Advance guard actions at all echelons are characterized by aggressive offensive action. Reconnaissance-by-fire techniques are frequently employed to develop the situation. Regardless of whether the battalion is the advance guard of a larger force or marching alone, its action is characterized by frequent attack from march column without detailed reconnaissance or deliberate planning.

(3) When contact is gained, the advance guard destroys small delaying forces or threats from the flank with fire and movement and physical assault when required. If sufficient combat power is not available to eliminate the enemy threat, the advance guard may be required to determine the extent of enemy resistance and contain the enemy force until elements of the main body can be committed.

4-25. Battalion as a Covering Force

a. The covering force of a unit moving to contact usually is provided and controlled by the highest tactical echelon involved. Thus, when the battalion is moving as part of the brigade or a higher echelon, the covering force normally is controlled by those elements. The mission assigned the covering force is to develop the enemy situation and prevent unnecessary delay of the main body. The battalion, appropriately reinforced with tank, artillery, and engineer units, may constitute the covering force for a brigade or division. The mechanized infantry battalion is ideally suited for this mission.

b. When employed as a covering force, the battalion operates well forward of the advance guard under the direct control of the main body commander. It normally advances in a broad front to insure complete coverage of the front and to eliminate the possibility of bypassing enemy forces. Sufficient strength is retained in reserve to influence local engagements.

c. Covering-force actions are characterized by speed and aggressiveness and unhesitating attacks to destroy enemy resistance, to seize and hold key terrain, or to contain large enemy units. Enemy situations are developed rapidly and information

concerning bypassed or contained enemy is relayed to the main body. The covering force engages in any action necessary to accomplish its mission but avoids becoming so engaged as to allow itself to be overrun or bypassed.

Section VII. RECONNAISSANCE IN FORCE

4-26. General

a. A reconnaissance in force is a limited-objective operation to determine and test the enemy's dispositions and strength or to develop other intelligence. Although its primary aim is reconnaissance, it may uncover weaknesses in the enemy's dispositions which may be promptly exploited.

b. A battalion may conduct a reconnaissance in force as a unit, or elements of the battalion may conduct a reconnaissance in force on a limited scale.

c. Mechanized and airmobile battalions, appropriately reinforced, are excellent reconnaissance-in-force units. Battalions operating dismounted can conduct a reconnaissance in force of limited depth. When provided Army aviation support, units can extend their reconnaissance over a wide front or larger area, or to a greater depth.

4-27. Basic Considerations

a. Reconnaissance-in-force operations normally develop information more rapidly and in more detail than other reconnaissance methods. In arriving at a decision to reconnoiter in force, the commander considers the:

(1) Extent of his knowledge of the enemy situation and the urgency and importance of the additional information sought.

(2) Efficiency and speed of other information collection agencies.

(3) Extent to which his overall plan of action may be divulged by the reconnaissance in force.

(4) Possibility that the reconnaissance may lead to a general engagement under unfavorable conditions.

b. When information is sought regarding a particular area, the reconnaissance in force is planned and executed as an attack with a limited objective. Where information on the enemy is desired over a wide front, multiple reconnaissances in force are conducted. In each case, the reconnoitering force should be given an objective(s). This

objective should be selected so that when threatened it will force the enemy to react, thereby disclosing the information sought. Reconnoitering forces need not necessarily reach and seize the objective assigned.

c. The reconnoitering force must be strong enough to cause the enemy to react to the attack, thus disclosing his location, strength, planned fires, and planned use of reserves. The size of the force depends upon the mission of the battalion and the situation. The battalion commander may use a force as small as a platoon or the battalion as a unit.

d. Sufficient reserves should be retained and plans should provide for exploitation of enemy weakness or for the extrication of the unit in the event it is threatened by a superior enemy force which could lead to an unwanted decisive engagement.

e. Upon completion of its reconnaissance mission and after the enemy has reacted and is engaged, the force may remain in contact with the enemy or be withdrawn. If the reconnaissance is to be followed by further attack, other units normally pass through the reconnoitering force; however, it may itself conduct the attack.

4-28. Reconnaissance in Force During Stability Operations

The reconnaissance in force in stability operations is used to collect information concerning the enemy and at the same time destroy his units and facilities. Because of the normal lack of hard, timely intelligence, the primary aim of the operation is intelligence; however, the battalion must be prepared to exploit meeting engagements and meaningful intelligence. The commander achieves tactical success by conducting a coordinated attack to destroy enemy units, destroying facilities discovered, or taking additional appropriate security measures. See paragraphs 7-45 through 7-52 and FM 31-16 for a more complete discussion of the conduct of the reconnaissance in force during stability operations.

Section VIII. COORDINATED ATTACK

4-29. General

a. A coordinated attack is a carefully planned and executed offensive action in which the various elements of a command are employed in such a manner as to utilize their powers to the greatest advantage to the command as a whole.

b. A coordinated attack is planned in detail. The two types of offensive operations discussed previously, movement to contact and reconnaissance in force, are preliminary operations. They are conducted either to gain contact with the enemy or develop the situation. The coordinated attack is the next logical step; however, movement to contact and reconnaissance in force are not required before a coordinated attack.

c. The coordinated attack is the offensive operation most frequently referred to, or thought of, when the term "attack" is used.

4-30. Basic Considerations

a. The coordinated attack is undertaken after thorough reconnaissance, methodical evaluation of relative combat power, acquisition and development of targets, and systematic analysis of all other factors affecting the situation.

b. A coordinated attack may be made before, after, or in conjunction with other offensive operations.

c. A coordinated attack normally involves overcoming major enemy resistance. When highly organized, well-fortified enemy positions must be destroyed or penetrated, a coordinated attack normally is required.

d. This type of offensive operation requires the maximum application of combat power; strict adherence to the fundamentals of offensive operations; thorough, detailed planning; and positive, aggressive leadership at all echelons of command.

e. Such attacks frequently are used in either

nuclear or nonnuclear warfare. In warfare involving use of nuclear or chemical munitions, reducing vulnerability and the period of risk of friendly elements are major considerations during the preparation and massing of the attacking force. In a nuclear environment, plans must be developed for rapid dispersal of forces immediately after they accomplish the mission. Mobility is essential in the nuclear environment to accomplish rapid assembly, movement to the objective, speedy dispersion, and reassembly to counter enemy threats.

f. Adequate time is required in a coordinated attack to allow for thorough planning and careful reconnaissance.

g. Air defense for the attacking force is normally required. The requirement is emphasized if the enemy has or can gain general or local air superiority or parity. Priority for defense is normally given to the main attack. See FM 44-1 and FM 44-3 and appendix J for details of air defense during offensive operations.

4-31. Organization for Combat

The coordinated attack requires a combined-arms force that is organized to provide the maximum combat power. The mission, enemy, terrain, and troops available influence each situation in which a coordinated attack must be made. The commander considers the recommendations of his staff and uses his judgment to develop the best combat organization.

4-32. Conduct of the Coordinated Attack

The coordinated attack is conducted in accordance with the principles discussed in this chapter. The commander is granted maximum freedom and support in carrying out the coordinated attack. The only restrictions imposed are those necessary to maintain control and insure noninterference with adjacent units.

Section IX. EXPLOITATION

4-33. General

a. Exploitation is the followup of gains to take full advantage of success in battle. Exploitation is a decisive phase of the offensive intended to destroy the enemy's ability to reconstitute and conduct an organized defense or to withdraw in an orderly manner. It permits maximum destruction of the enemy and his resources at minimum cost to

the attacker. For additional guidance concerning the position of the trains, actions on contact, attachment of additional vehicles, increase in combat loads, and maintenance and evacuation for a tank-heavy or infantry-heavy mechanized infantry battalion task force, see FM 17-1.

b. The exploitation normally occurs after a successful attack and seizure of the battalion objec-

tive. With adequate nuclear support, however, the exploitation may be launched from the outset of the offensive action. The exploitation may call for an advance of many kilometers over a broad front and may lead into the pursuit.

4-34. Basic Considerations

a. Since the exploitation is the continuation of an attack, commanders at all echelons must be prepared to exploit and pursue at any time the opportunity is presented.

b. Objectives deep in the enemy rear are selected by higher headquarters. Their seizure should deny the enemy routes of escape, encircle him, and destroy his communication centers and logistical installations.

c. Organization for combat should provide for tank-heavy forces composed of tanks and mechanized infantry. Airmobile forces are used to secure objectives critical to the advance and to cut enemy lines of escape. Swift raids, thrusts, and envelopments prevent enemy reorganization. Artillery and other combat support units may be attached to the battalion for the exploitation. Full use should be made of tactical air and Army aviation for fire support and reconnaissance.

d. Exploitation may be initiated on order or upon reaching prescribed objectives or phase lines. Indications favoring exploitation include a decrease in enemy resistance, an increase in captured prisoners, an increase in abandoned materiel, and the overrunning of artillery, higher unit command posts, signal installations, and supply dumps.

e. The exploiting force advances rapidly and arrives at its objective(s) with maximum strength. The force clears only as much of its zone as is necessary to permit its advance to continue. Enemy forces that interfere or can interfere with accomplishment of the mission are destroyed. The exploiting force bypasses, or contains with minimum forces, enemy resistance of insufficient strength to jeopardize the accomplishment of the

mission. Bypassed forces are reported to higher headquarters.

f. There are two general methods by which the commander can exploit the success of the battalion. The method the commander chooses is implemented rapidly.

(1) *Exploit with committed forces.* In this method, forces are committed to exploit their own success. This method is generally indicated when the attacking echelon has accomplished its mission with minimum loss and is the force most readily available to continue the advance against the enemy. It may become necessary to reorganize and resupply these forces on the move.

(2) *Exploit with reserves.* In this method, the reserve is committed by passing it around, over, or through the forces which have achieved the success. This method is generally indicated when the attacking echelon still has essential tasks to accomplish, is still actively engaged with enemy forces, will require reorganization before it can continue the advance.

g. Decentralized execution is characteristic of exploitations. Mission-type orders are given to subordinate commanders. A minimum number of control measures are used.

h. In the exploitation, nuclear weapons are used principally on targets of opportunity. These weapons are used to destroy hostile reserves and to seal enemy escape routes. Chemical agents are effective means of contaminating escape routes which will create a hazard to troop movement.

i. Logistical support, particularly forward movement of class III and V, may be the limiting factor in determining how far the battalion may exploit or pursue the enemy. Portions of the battalion trains may accompany the exploitation forces.

j. The battalion normally will participate in an exploitation only as part of a larger force and will apply the doctrine applicable for movement to contact and attack.

Section X. PURSUIT

4-35. General

a. The pursuit normally follows the exploitation. It differs from the exploitation in that its primary function is to complete the destruction of the enemy force which may be in the process of disengagement. While a terrain objective may be designated, the enemy force itself is the primary objec-

tive. The battalion commander must be alert for any sign of the enemy's inability to maintain organized resistance, report such facts to higher headquarters, and maintain relentless pressure on the enemy force facing him. The pursuit is initiated upon approval of higher headquarters.

b. There are two general methods of conducting the pursuit.

(1) *Direct pressure.* In this method, the direct pressure force maintains pressure against the retreating enemy. The mission of this force is to prevent enemy disengagement and subsequent reconstitution of the defense, and to inflict maximum casualties. This method may be used by all types of forces, including dismounted infantry. It is a frontal attack, with the forces advancing with maximum combat power forward and on a broad front.

(2) *Direct pressure in combination with an enveloping force.* In this method, the direct pressure force maintains pressure on the retreating force while a highly mobile enveloping force cuts the enemy's line of retreat to intercept and destroy him. This method requires that all of the force or at least the enveloping force be provided with a means of increasing its relative mobility over the enemy (air or ground vehicles).

4-36. Basic Considerations

a. Once the pursuit is ordered, the commander presses the attack with all available resources. Maximum use is made of airmobile and/or mechanized forces. Local enemy defenses are overrun, and isolated pockets of resistance are bypassed or destroyed by fire. The main enemy force is prevented from organizing an effective defense by the presence of the pursuer.

b. The battalion commander may designate terrain objectives, phase lines, or checkpoints to control a pursuit. In assigning control measures for a pursuit, subordinate commanders are given as much freedom of action as is consistent with security and maintenance of command integrity.

c. Subordinate elements are made as self-sufficient as resources will permit.

d. Fire support elements will be placed well forward so that fire can be delivered deep into enemy positions and on enemy retreating columns. Close air support is used to interdict routes of movement of enemy columns.

e. Preparation is made to provide essential combat service support. Class III consumption is particularly high. Air transportation may be used for delivery of supplies to forward units. Maximum use is made of captured enemy materiel, particularly transportation and stocks of supplies.

f. The battalion will normally only participate in a pursuit as part of a larger force and may comprise or be a part of the direct pressure or enveloping force. Doctrine for movement to contact and attack (usually frontal over wide frontage) is applied during the conduct of the pursuit.

4-37. Battalion in Follow-and-Support Role

a. *General.* Follow-and-support forces are employed primarily in exploitation and pursuit operations. They assist attacking (supported) forces by relieving them of tasks that would otherwise slow their advance. These tasks may include:

(1) Securing key terrain seized by the supported force.

(2) Securing lines of communication.

(3) Destroying bypassed pockets of resistance.

(4) Blocking the movement of enemy reinforcements into the area.

(5) Relieving elements of the supported force which have been left to block or contain enemy forces, or protect key areas and installations.

(6) Expanding the area of exploitation.

(7) Handling prisoners of war and refugees.

b. *Conduct.*

(1) When assigned a follow-and-support role, the battalion will frequently operate beyond supporting distances of the parent brigade and may require attachment of artillery, engineer, and combat service support elements. A follow-and-support unit is seldom attached to the supported force; therefore, responsibility for command and support of the follow-and-support battalion rests with its parent brigade; however, the follow-and-support battalion accomplishes tasks at the request of the supported commander.

(2) The battalion commander coordinates closely with the supported force commander to insure a mutual understanding concerning the conduct of the operation. Liaison officers and SOI are exchanged.

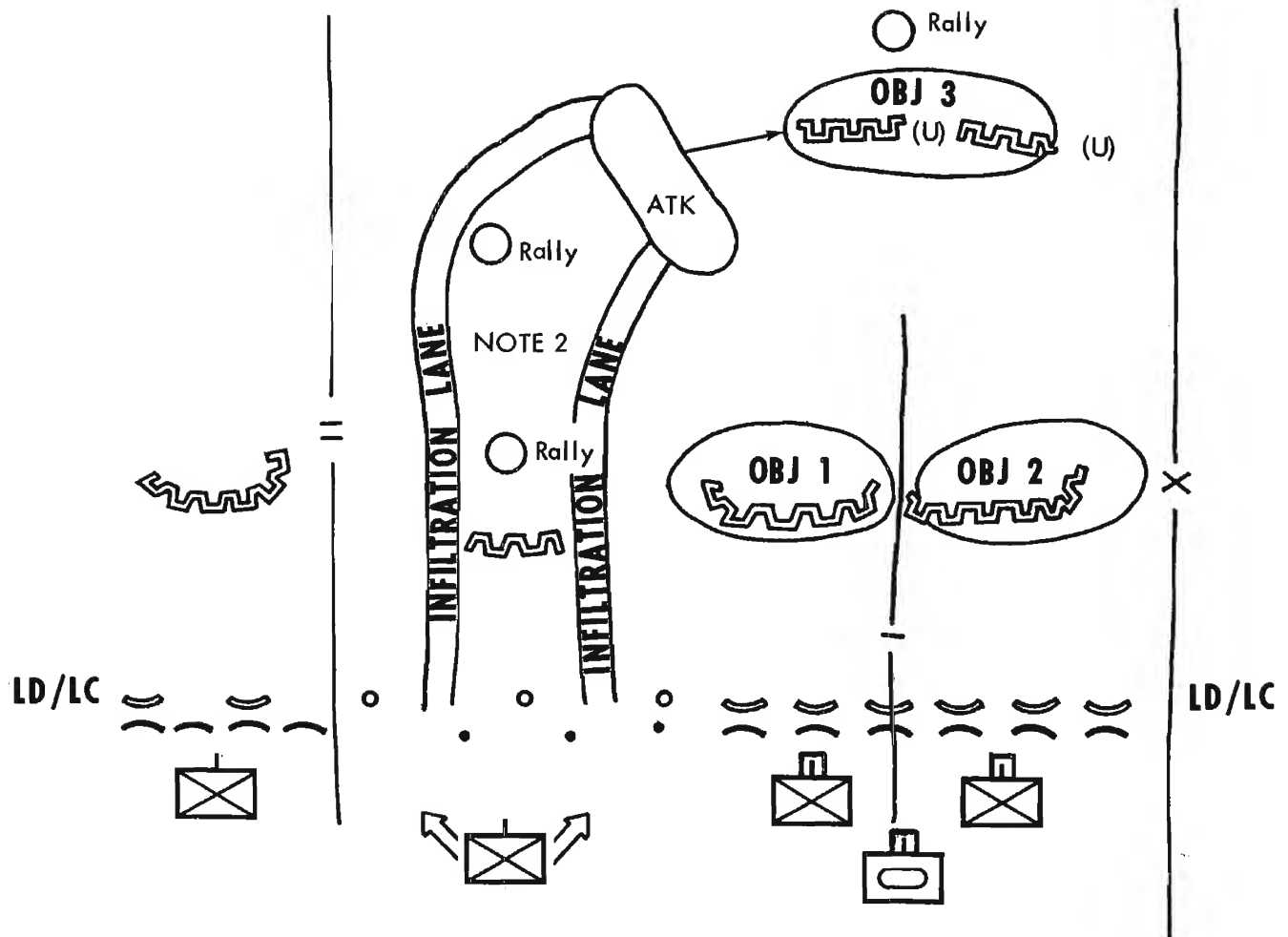
(3) Formations adopted for the follow-and-support role, ranging from column to parallel columns, depend on the enemy situation and tasks assigned by the supported commander.

Section XI. INFILTRATION

4-38. General

a. Infiltration is a technique of movement which

may be employed with all forms of maneuver. The purpose of infiltration is to penetrate the enemy



NOTE:

Concurrently with attack by two companies from LD to seize Objectives 1 & 2, infiltrating company attacks to seize Objective 3. Seizure of this objective, which is on key terrain, will block movement of reserves and facilitate destruction of enemy forces on Objectives 1 & 2. After seizure of Objectives 1 & 2, attacking companies linkup with force on Objective 3.

Figure 4-8. Infiltration in a battalion attack.

position by stealth and deploy forces in his rear to conduct or assist in the conduct of decisive tasks. These tasks may be:

- (1) To seize key terrain.
- (2) To destroy the enemy or his vital installation to assist the main attack by attacking his reserves, fire support delivery means (especially nuclear), and key command, communication, and logistical installations.

(3) To obtain information for intelligence purposes.

b. Gaps in the enemy lines, rough or difficult terrain, and poor conditions of visibility facilitate infiltration.

c. Although infiltration best lends itself to dismounted action, under certain circumstances, aircraft, as well as ground vehicles, can be used ef-

fectively to expedite movement of the infiltrating forces (fig. 4-8).

4-39. Basic Considerations

a. Execution of a successful infiltration requires terrain or enemy dispositions, or both, that permit movement of forces through initial enemy defenses without detection.

b. The battalion retains direct control over an infiltration operation when the infiltrating force is of company-size or larger. Otherwise, control is normally decentralized.

c. Control measures must be in considerable detail since the infiltration is conducted by small groups during periods of reduced visibility and often through difficult terrain.

d. Linkup plans must provide adequate recognition means and unity of command once the linkup has been made.

e. Within the area of infiltration, a series of infiltration lanes of sufficient width to permit the

infiltrating groups to move by stealth are designated. Infiltration lanes (in conjunction with the coded designation of infiltrating groups and their probable sequence of movement), checkpoints, and phase lines provide a means of reporting the progress of the operation and of coordinating fires with movement of the groups. Other control measures used are attack positions, objectives, and rallying points or areas.

f. Communications must be provided for use within the infiltrating unit and for use between that unit and the controlling headquarters.

g. Units making an infiltration usually attack only with individual weapons and hand-carried, crew-served weapons. Provision must be made to provide adequate fire support and air defense support to infiltration units once they close on the objective. Plans should provide for air delivery of heavier weapons to the objective area to provide additional support for subsequent operations.

h. Supporting fires are planned to cover and assist movement of infiltration forces.

Section XII. NIGHT ATTACK

4-40. General

a. *General.* Offensive operations conducted during periods of limited visibility are frequent and should be considered an integral part of all operations. Reduced visibility caused by night, fog, smoke, haze, and dust hampers the enemy's ability to defend. Therefore, attacks during periods of reduced visibility often give the attacker a distinct psychological advantage. Surprise may often be achieved under these conditions when it is not possible during daylight operations. Night vision devices used in conjunction with radar and other surveillance devices enhance the chance for success.

b. *Reasons for Night Attack.* Night attacks may be used to continue the momentum gained by a successful daylight attack, to gain surprise, to mass a superior force under the cover of darkness, or to reduce the effectiveness of enemy fires.

c. *Control.* During periods of reduced visibility, more restrictive control measures must be used.

d. *Methods.* There are two methods for conducting a night attack: illuminated and nonilluminated. The particular method(s) employed depends on such tactical considerations as the enemy strength and degree of preparation of his positions, his security measures and night surveillance capabilities, the terrain, light conditions, and

means available. The nonilluminated attack is made to achieve surprise in closing with the enemy before he discovers the attack. The illuminated attack is made when the enemy position is strong, when the possibility of achieving surprise is remote, and where control of units requires use of daylight control methods. Either method of night attack may use fire support, although preparatory fires are not normally used in a nonilluminated night attack; however, fire support is always planned and used at the discretion of the commander.

e. *Application of Night Techniques.* During operations in smoke, fog, haze, thick jungle, and other conditions of reduced visibility, techniques used in night operations may apply.

f. *Reference.* See FM 31-36 (Test) for a detailed discussion of the conduct of night operations.

4-41. Basic Considerations

a. Close combat is more frequent at night than during daylight attacks. This is due to the decreased ability to employ aimed fire and the difficulties in coordinating supporting fires with the maneuver of troops.

b. Although well-trained units can execute night attacks on short notice, planning and troop-

leading procedures for a night attack are generally more extensive and time-consuming than for a similar operation conducted during daylight. Planning should allow subordinate commanders and staffs adequate time for daylight reconnaissance and preparations in assembly areas. Troops should be thoroughly briefed on the final plans.

c. Night airborne or airmobile operations are considered a normal part of night attack operations.

4-42. Planning and Preparation

a. *General.* Troop-leading procedures and techniques for planning a night attack are similar to those for planning a daylight attack. However, detailed planning with a simplified scheme of maneuver is required for a night attack.

b. *Reconnaissance.* If possible, planning should allow subordinate commanders and leaders adequate time to conduct a daylight, dusk, and night reconnaissance of the operational area.

c. *Surprise and Secrecy.* In conducting a night attack, surprise is gained through secrecy and stealth. Measures taken to insure surprise should include:

(1) Restricting the size and time of parties engaged in reconnaissance and other preparations.

(2) Continuing the normal pattern of artillery and mortar fire in the area of operations or by using artillery and mortar fire to cover the sound of tanks and armored personnel carriers.

(3) Conducting local attacks in areas not designated for the night attack.

(4) Attacking at a time and from a direction not previously used.

(5) Illuminating areas other than the attack area to deceive or mislead the enemy.

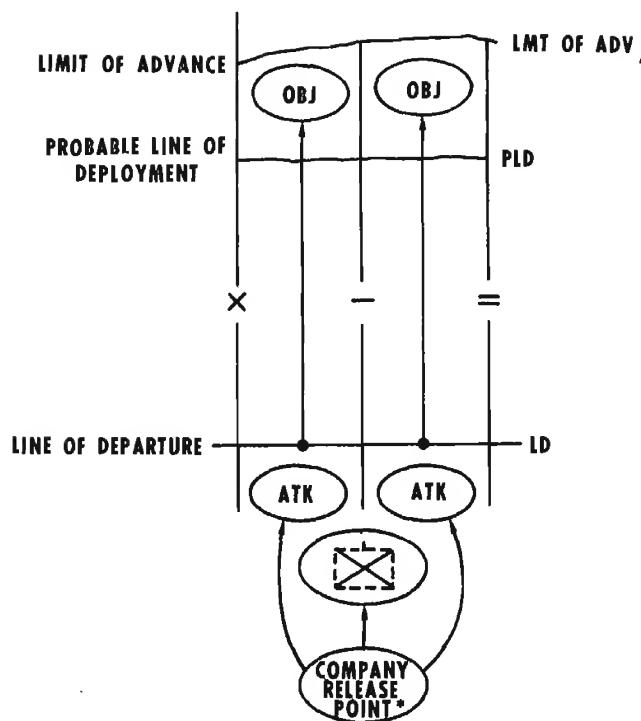
(6) Imposing radio listening silence at least until reaching the probable line of deployment and, if possible, until the attack has been discovered; thereafter, insure use of good communications security practice.

(7) Conducting the attack without artificial illumination until the attacking force is exposed to effective enemy fires or until the enemy uses illumination.

(8) Planning for, and making maximum use of, organic night vision devices.

(9) Avoiding standard patterns, including methods of attack.

d. *Control Measures.* The following control measures are planned for and used in the night attack (fig. 4-9).



*CONTROL RELEASED TO COMPANY COMMANDER AT THIS POINT.

Figure 4-9. Battalion in night attack.

(1) *General.* Assembly areas, attack positions, line of departure, release points, probable line of deployment, contact points, boundaries, direction of attack, and objectives are principal control measures used in a night attack. They are used in the same manner as in the daylight attack.

(2) *Release point (RP).* The company RP is a point at which the battalion commander releases control of companies to their commander. This control point must be easily recognized in the dark. It may be marked by artificial means. It is habitually to the rear of the LD unless the battalion commander elects to cross the LD in a column of companies. This may be done to facilitate control while advancing to a deep objective.

(3) *The probable line of deployment (PLD).* PLD is the terrain location selected in planning where attacking units deploy before launching the assault. Although placement of the PLD beyond existing obstacles (wire and mines) is desirable, it may not be practical. If obstacles cannot be breached without detection, the PLD may be placed to the friendly side of the obstacles. In selecting the PLD, the commander considers the nature of the terrain, enemy dispositions to include the location of enemy security elements, and the enemy techniques of operation. The PLD

should be easily recognizable on the ground, be within assaulting distance of the objective, and be capable of being marked by artificial means and/or friendly security patrols.

(4) *Limit of advance.* For troop safety, the forward advance of attacking troops is halted at a line indicating the limit of advance. This line must be easily recognized in the dark and far enough beyond the objective to permit forward friendly security forces to operate effectively. It is frequently employed to coordinate and control supporting fires.

(5) *Night operating aids.* Night operating aids which may be used to facilitate control include special means for identifying friendly troops, such as luminous marking on the uniform, filtered or colored flashlights used for recognition, or other type signals. The use of passive night vision equipment and surveillance devices is planned by each commander to assist in the observation and surveillance of the battlefield. This information is contained in the night visibility plan (NVP). (See FM 31-36 (Test).) The equipment is well-suited to operations requiring stealth and secrecy, and significantly increases the commander's influence and flexibility during periods of limited visibility.

e. Illumination.

(1) Plans are made for employing available illumination, even if the attack plan calls for the objective to be seized by stealth. In the event there is little or no chance of achieving surprise, artificial illumination may be used as soon as the maneuver force crosses the LD. If surprise can be gained, illumination is withheld until the attack has been discovered or until the enemy places effective fire upon the attacker.

(2) A portion of the battalion zone may be illuminated, while other portions are not. An enveloping force may move under cover of darkness with the aid of passive or infrared night vision equipment, while the supporting attack is conducted with illumination.

(3) Use of active (infrared) and passive night vision devices has a definite psychological effect on the enemy. Often he may not be able to visually detect the weapons from which he is receiving effective aimed fire.

(4) Once the attack is discovered, all means of illumination, including tank and artillery searchlights, flares, and illumination rounds delivered by ground and aerial means, are employed if they assist the attacker. Indirect illumination may be placed on the objective following the assault to assist in the consolidation and reorganization. The

commander must realize, however, the same advantage illumination provides his force is also provided to the enemy. He must weigh this against the alternatives of curtailing illumination, and completing this consolidation and reorganization assisted by use of available night vision devices. Commanders must insure that battlefield illumination is avoided or reduced to an absolute minimum while infrared operations are being conducted. Exposure to direct white light will blank out infrared equipment.

f. Fire Support Plan. Fire support and the methods of controlling it during an illuminated attack are identical to those used in the daylight attack. When partial or no illumination is employed, indirect fires are planned against known targets on the objective to protect the flanks of the maneuver unit and to isolate the objective. The pattern of fires existing prior to the attack is maintained. When a night attack is made to achieve surprise, the commander defines the conditions under which supporting weapons are to be fired.

g. Communication. Normal radio traffic is maintained prior to the attack but no mention of the attack is made in the clear until the actual attack has been discovered. After attacking units cross the LD, radio listening silence is maintained in the attacking echelon, with normal traffic continued by units located along the line of contact. When feasible, wire is used as the primary means of communication for undisclosed night attacks. However, once the attack is disclosed, radio now becomes the primary means of communication. Even though radio becomes the primary means of communications extreme care must be exercised to insure that information which could be of immediate use to the enemy is not passed in the clear.

h. Nuclear Attacks. In using nuclear weapons, wide coordination is necessary to prevent disruption of the attack through night blinding. Warning, including the time of burst, is essential to provide for eye protection of attacking forces during the nuclear flash.

4-43. Scheme of Maneuver

The battalion commander employs enough combat power forward to enable assaulting units to clear assigned objectives in the initial assault. Simple schemes of maneuver are planned for night attacks wherever practicable. This does not preclude the conduct of shallow flank attacks at night when the terrain and situation permit.

a. Formations. The formations used for the illuminated night attack are similar to those used in daylight attack. When conducting a nonilluminated attack, the battalion normally crosses the LD with attacking companies abreast when the Company's RP are located to the rear of the LD. If the terrain and situation dictate that company release points be located forward of the LD, the battalion uses the column formation until the release points are reached. Release points are located to permit the deployment of assault elements to be completed at the PLD.

b. Distribution of Forces in the Night Attack. During the night attack, the commander must allocate adequate combat power to support the scheme of maneuver. For night attacks, the commander normally employs a maneuver element; a base of observation, illumination, and fire element; and a reserve element.

(1) The maneuver force may be composed of the rifle companies, attached tank companies, and the battalion reconnaissance platoon. The scheme of maneuver is the plan for the placement and movement of these forces to accomplish their assigned mission. In planning the night attack, company objectives are clearly delineated and must be easily recognized at night. A zone of action is designated for each attacking company. A direction of attack may be established along a recognizable terrain feature, an azimuth, or both.

(2) To increase the capabilities of night observation and control, the battalion plans and employs a base of observation, illumination, and fire. This includes the planning and use of night operating aids such as starlight scopes, night observation devices, infrared weapon sights, metasopes, electronic binoculars, searchlights, illuminating rounds, and surveillance radars. Planning for supporting fires for the night attack is discussed in paragraph 4-42.

(3) A rifle company may be retained as the battalion reserve. The reserve is prepared to assume the mission of an attacking company at any time. However, it normally is not committed in an area where it may become involved with other attacking companies unless illumination or other night operating aids are used to prevent confusion between friendly units. The reserve may be used to continue the attack once initial objectives have been seized or may be committed around leading elements which have become engaged.

(4) When secrecy is desired, tanks and personnel carriers must be employed with care in the attacking echelon. The movement of tanks and personnel carriers may compromise secrecy; how-

ever, where the enemy situation permits their employment to within feasible distances of enemy dispositions without compromising the attack, their employment to provide a combined-arms capability and to preserve troop strength is desirable. If the terrain and light conditions permit, and if the need for tank support during the assault and consolidation outweighs the necessity for secrecy, tanks may be attached to and employed with the attack echelon. Usually, tanks remain in position behind the LD and fire at or illuminate designated targets or target areas on call. They may be used to exploit through attacking infantry elements after intermediate antitank resistance has been eliminated. The control of tanks with dismounted infantry is especially critical in regard to troop safety. Mechanized infantry in the company teams remains mounted until further surprise cannot be achieved, at which time visible illumination is initiated or increased. Every effort is made to maintain a line formation and prevent it from breaking into isolated groups.

(5) Antitank squads of the antitank platoon may remain in the vicinity of the LD in preselected firing positions, prepared to fire or displace on order. Illumination is required for employment of antitank missiles. Plans are prepared for the attachment of antitank squads to companies in whose areas enemy tank threats are likely to develop. Light and medium antitank weapons are carried by attacking infantry elements to provide support against enemy armor encountered at close range.

(6) General support is the preferred method of employing the battalion mortar platoon in the night attack. The fires of the mortars are planned for a night attack in essentially the same manner as for a daylight attack. For attacks using stealth, preparatory fires are not normally used. Normal rates of harassing and interdictory fires are maintained until the attack is discovered or secrecy is no longer necessary.

(7) The reconnaissance platoon may be employed initially in a maneuver force security role with contingency missions, such as flank security, to be executed on order (usually after contact with enemy forces). The maximum use of night operating aids is made to accomplish the reconnaissance and security mission.

(8) The ground surveillance section may be employed well forward and on the flanks to determine the location and progress of the attacking force, to provide information for use in guiding forces, and to locate changes in enemy dispositions prior to and during the assault.

(9) The Redeye section may be employed in

support of night attacks that are not supported by friendly aviation. This limitation is due to the almost complete inability to differentiate between friendly and hostile aircraft at night.

c. Time of Attack. Time patterns are avoided so that the enemy cannot predict the time of attack. Often an attack is made late at night so that initial objectives can be seized by daylight and the attack continued at that time. If the objective is relatively deep, or if the battalion mission requires immediate continuation of the attack, the attack may begin early at night, seizing the initial objective by dismounted action using stealth, and continuing to the final objective during darkness with a mobile force. If the objective is to be seized and held, the attack may begin early at night with the consolidation and reorganization on the objective taking place in darkness.

4-44. Conduct of the Night Attack

The attack begins when the battalion crosses the LD on the move to the PLD. Commanders must position themselves well forward to insure aggressive movement and maintenance of direction by their units, and coordination with other units to include the force providing a base of observation, illumination, and fire.

a. Security Units. Reconnaissance patrols used for gathering information before the attack may be used during the attack as members of frontal and flank security detachments to mark routes or guide units forward of the LD to the PLD. Security elements may be used forward of the LD to prevent discovery of the attack prior to arrival at the PLD.

b. Advance to Probable Line of Deployment. During a nonilluminated attack, attacking companies advance silently in columns forward of the LD. The previous pattern of night fires is maintained to assist in concealing their movement. From platoon and squad RP, units move to the PLD, deploy, and prepare to continue the advance

at a predesignated time or in response to a given signal. When the advance is resumed, the attacking echelon moves forward silently until discovered by the enemy after which it begins the assault.

(1) If an enemy outpost or patrol is encountered during the movement forward from the LD, leading elements of the column dispose of it as quickly as possible. If the attack is prematurely discovered, the company commander of the unit concerned may be delegated authority to launch the assault on his own initiative.

(2) If the PLD is located beyond an obstacle, plans are included for breaching the obstacle. If the PLD is located on the near side of an obstacle, the obstacle must be breached by explosives or other means at the beginning of the assault.

c. Assault. When the assault begins, all assaulting troops advance as quickly as possible. Flares, searchlights, and other illuminating and night operating devices such as individual weapon sights may be used to allow assaulting troops to place aimed fire on the enemy and to move at a more rapid rate.

4-45. Actions on the Objective

Consolidation and reorganization begins as soon as the objective has been captured. Consideration must be given to the use of night vision devices during the consolidation and reorganization. This is necessary because the attacking unit will suffer from night blindness for about 30 minutes after extinguishing visible lights. Simultaneously, during the consolidation and reorganization, security elements are deployed far enough forward to warn of enemy forces forming for a counterattack. Direct fire weapons are displaced to the objective and artillery and mortar forward observers plan defensive fires as soon as possible. Subordinate units complete their consolidation and reorganization as rapidly as possible while the battalion prepares plans for future operations.

CHAPTER 5

DEFENSE

Section I. INTRODUCTION

5-1. General

a. This chapter provides doctrine for the employment of infantry battalions in defensive operations. Conditions of terrain and climate as well as intensities of warfare dictate modification of techniques and procedures for defense; however, the doctrine for defense remains the same.

b. The battalion's mission in defense is to repel and destroy the enemy by fire, close combat, and counterattack.

c. The purpose of defensive operations may be to—

(1) Develop more favorable conditions for subsequent offensive action.

(2) Economize force in one area to apply decisive force elsewhere.

(3) Compel an enemy force to mass.

(4) Destroy or trap a hostile force.

(5) Deny an enemy entry into an area.

(6) Reduce the enemy's combat power with minimum losses to friendly forces.

5-2. Capabilities

The battalion is capable of conducting a defensive operation as part of a larger force or, occasionally, in an independent or semi-independent role. Its capabilities are dictated by additional resources attached to it, placed in support of it, or otherwise made available. Methods of conducting the defense are based upon the capabilities of organic, attached, and supporting elements.

5-3. Defensive Doctrine

The doctrine of defense envisions the use of security forces to provide early warning and to delay, deceive, and disorganize the enemy's attack; forward defensive forces to organize the forward defense area, repel the attacker, and develop the situation; and reserve forces to eject or destroy the attacker by offensive action thereby regaining the

initiative. Commanders should capitalize on mobility, firepower, and offensive action in the defense to retain or regain the initiative, to deny the attacker a decisive objective, to avoid becoming fixed and destroyed, and to destroy the enemy by firepower and maneuver. When the enemy is a mechanized force, the forward defense echelon should contain sufficient tanks or other antitank weapons either to repel the attacker or to fully develop the situation. Effective defense requires space for maneuver and an appropriate degree of mobility.

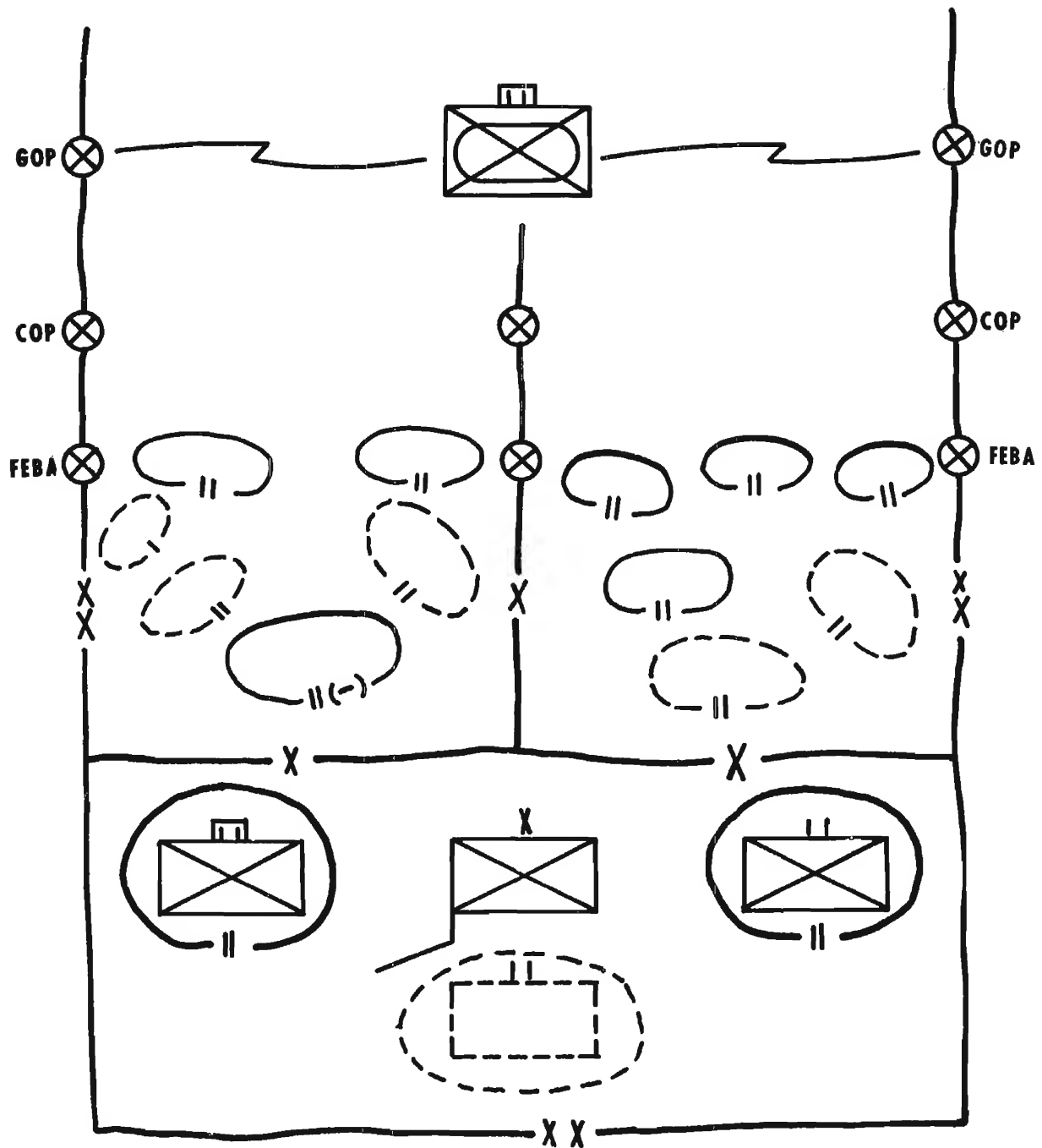
5-4. Defensive Considerations

a. The defender takes every opportunity to seize the initiative to destroy the enemy. He seizes the initiative by selecting the battle area, forcing the enemy to react to the defensive plan, exploiting enemy weaknesses and errors, and counterattacking enemy success. Defensive operations are normally imposed by the inability to attack; however, in a nuclear environment defensive operations in combination with deception may lure the enemy into presenting a lucrative target.

b. The shift from offense to defense, or vice versa, may occur rapidly and frequently. A defensive operation is often a composite of major and minor engagements. Separate elements of the command may simultaneously be defending, delaying, attacking, and delivering fires as part of the defense.

c. An offensive attitude is necessary to seize opportunities to destroy the enemy. Strong leadership in the defense is required to motivate a command and to maintain high morale, alertness, and an aggressive attitude.

d. In the defense, the mobility of armor, airmobile, and mechanized units must be exploited to maneuver firepower into position to destroy the enemy. Mobility makes possible the achievement of surprise and permits the rapid concentration and prompt dispersal of combat forces in nuclear



- NOTES:
1. Forward defense echelon contains bulk of combat power.
 2. Priority for allocation combat power to forward defense.
 3. Defense plans to accept decisive engagement and accomplish mission along forward edge of the battle area.
 4. Emphasis is on retention or control of specific terrain.
 5. Counterattacks are made to eject or destroy enemy penetrations of the forward edge of the battle area.

Figure 5-1. The infantry division in area defense.

warfare. It also makes feasible the assignment of multiple missions, permits the concentration of converging forces on a single objective, and permits the rapid disengagement of committed forces. Commanders at all levels must anticipate and plan to overcome or avoid conditions that inhibit mobility. These conditions include not just terrain obstacles but all restrictions to movement.

e. When the battalion is employed against armored or mechanized forces, the antitank plan assumes paramount importance in the coordination of the fire support, maneuver, and barrier plans of the battalion—all of which must be closely integrated to assure accomplishment of the battalion mission. The battalion commander considers the antitank means available, to include attached tank companies, and arranges this antitank capability to provide depth, flexibility of fires, maneuver, and (if sufficient means have been provided) a reserve for counterattack or spoiling attack purposes. The reserve force ideally should consist of a tank-heavy combined-arms team supported by Army aviation. The mechanized infantry battalion reinforced with tanks is suited for employment against armor or mechanized forces.

5-5. Forms of Defense

a. The two basic forms of defense are the *area defense* and the *mobile defense*. Often, the most suitable form of defense in a given situation will be a variation of either the area or mobile defense, incorporating elements of both.

(1) The area defense is oriented toward the retention of specific terrain or toward forcing the enemy to accept a tactical disadvantage in order to attack against his objective. In this type of defense, forward positions are strongly held with emphasis placed on stopping the enemy forward of the battle area. The bulk of combat power is committed in the forward defense area. If the enemy penetrates the area, he is destroyed or ejected by counterattack with the principal objective being regaining control of the forward defense area (fig. 5-1).

(2) The mobile defense is normally conducted by division and higher echelons. It is based on skillful use of fires and maneuver to destroy the enemy. Minimum combat power is employed in the forward defense area to warn of impending attack, to delay and disorganize the enemy, and to canalize the attacking forces into areas suitable for counterattack by the reserve striking force. The preponderance of combat power is retained in a strong mobile reserve positioned for offensive action with the principal objective being destruction of the enemy (fig. 5-2).

b. The battalion by itself does not have the capability of conducting a mobile defense; however, it may participate in a mobile defense as part of a larger force. In such an operation, the battalion may be employed as part or all of the security force, as part of the forward defense force, or as part of the reserve force.

c. When a battalion is employed on the FEBA, it may accomplish its mission by conducting a delaying action or an area defense, or some variation of both (fig. 5-3). The exact method to be employed is established by the higher commander who informs the battalion of the mission he desires accomplished and the overall concept for the conduct of the mobile defense.

d. The offensive actions most frequently associated as elements of defensive operations include the *spoiling attack* and the *counterattack*.

(1) The spoiling attack is an offensive tactical maneuver employed by a unit on the defense to impair an impending hostile attack while the enemy is in the process of forming or assembling. It is usually conducted by armor, mechanized, or airmobile units as a limited-objective attack.

(2) A counterattack is an attack by part or all of a defending force against an attacking enemy force to regain lost ground or to cut off or destroy enemy advance units. The attack is conducted at a time most advantageous to the defender.

5-6. Defense Areas

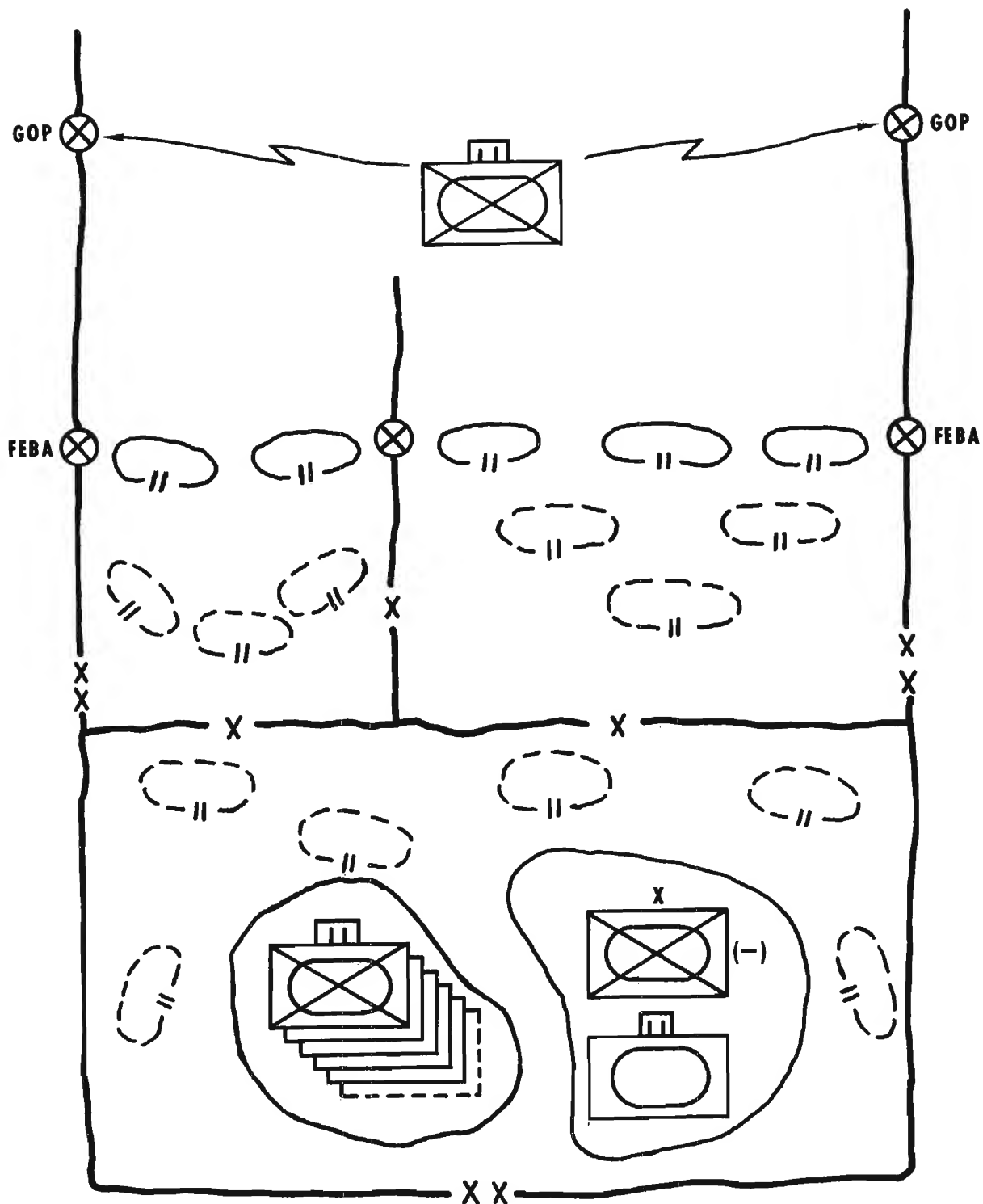
The battalion defense (battle) area includes the security area, the forward defense area, and the reserve area (fig. 5-4).

a. *Battalion Security Area.* The battalion security area extends forward from the FEBA to whatever distance the security elements (security area) available to the battalion are employed. Forces in the security area furnish timely information of the enemy, deny him close ground observation of the battle area, and deceive, delay, and disorganize him to the extent of their capabilities. Security forces in this area may also include aerial surveillance elements, the brigade COP, patrols, local security elements, and elements of the GOP or covering force (depending on its route of withdrawal).

b. *Battalion Forward Defense Area.*

(1) The battalion forward defense area extends rearward from the FEBA to include that area organized by the forward companies.

(2) Forces in the forward defense area in the mobile defense warn of impending attack, delay and disorganize the enemy, and canalize the at-



- NOTES: 1. Forward defense echelon relatively light. Reserve dispersed in assembly areas.
2. Priority for allocation of combat power to reserve.
3. Blocking positions are located to contain or slow enemy penetrations for subsequent attack by the reserve echelon.
4. GOP force is taken from the reserve echelon or other forces available to the commander.

Figure 5-2. The mechanized division in the mobile defense.

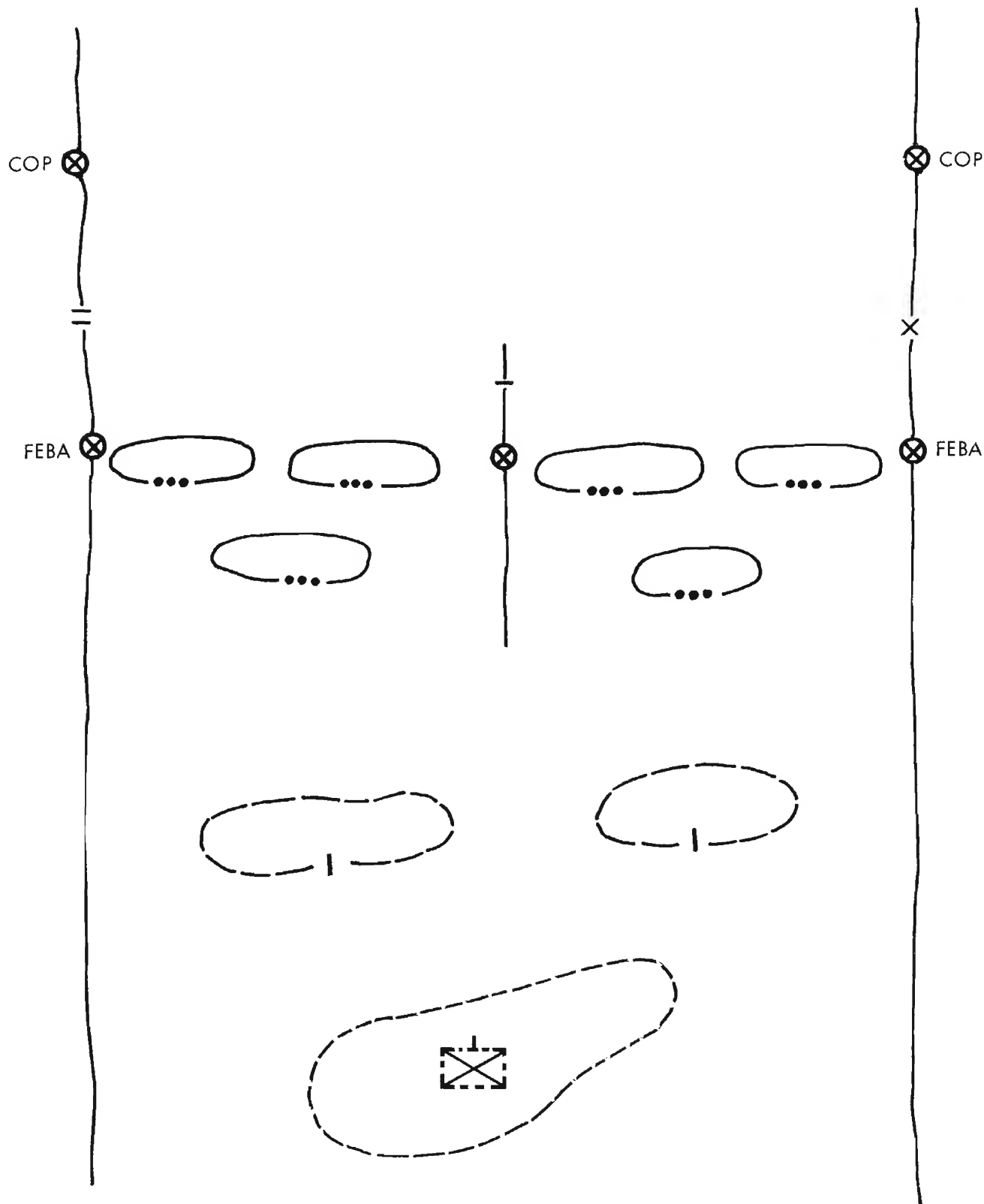


Figure 5-3. Battalion in area defense.

tacking enemy into an area suitable for counterattack by the reserve.

(3) Forward defense forces (forward defense

area) in the area defense engage the enemy in decisive combat in order to destroy his forces and retain specific terrain.

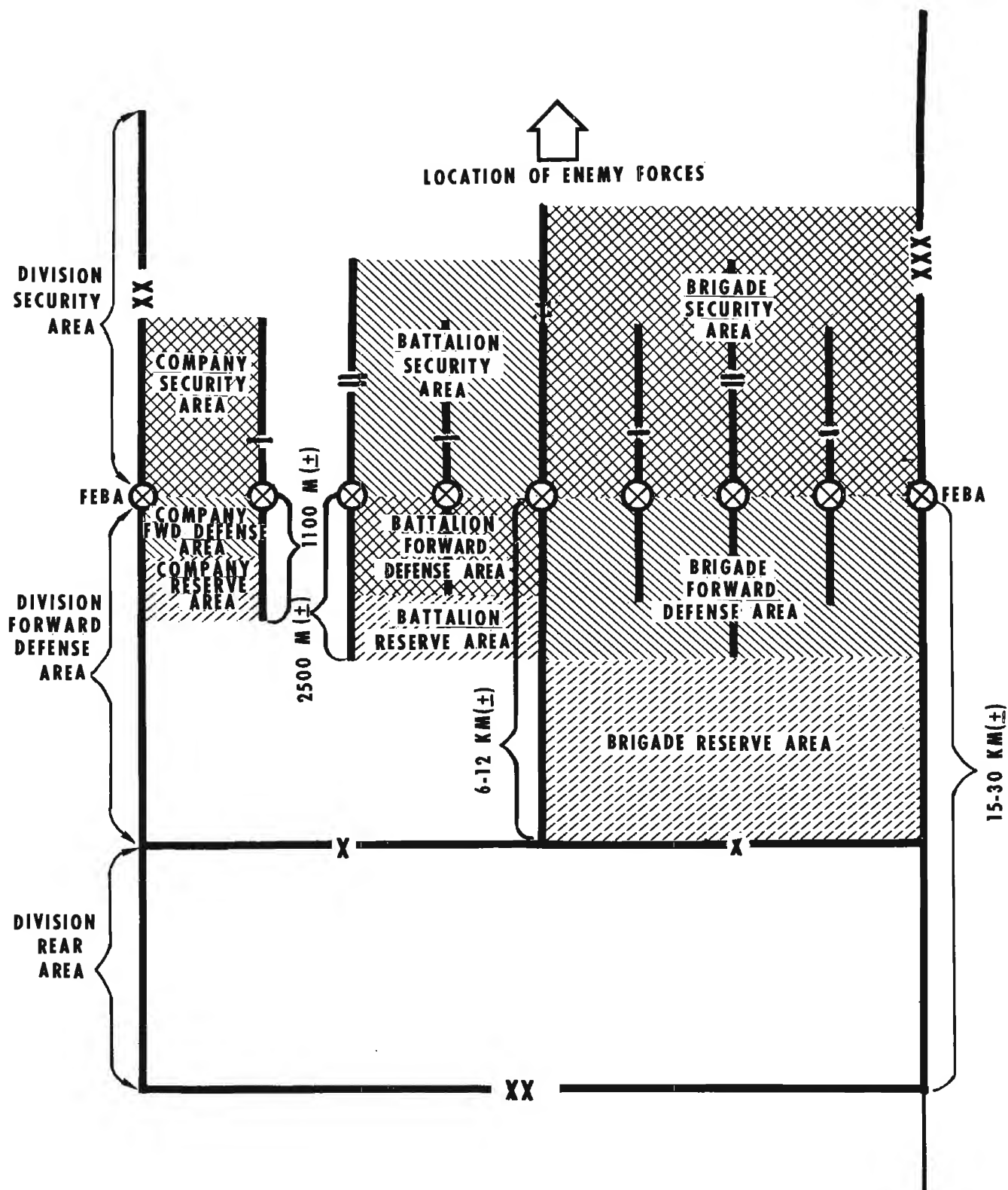


Figure 5-4. Defensive areas.

c. Battalion Reserve Area.

(1) The battalion reserve area extends from the rear of the forward committed companies

(from the limit of the rearward extension of the boundary between companies) to the battalion rear boundary.

(2) Forces in the battalion reserve area block or reinforce threatened areas or destroy or eject the enemy in penetrations by counterattack to

regain control of the battalion forward defense area.

Section II. FUNDAMENTALS OF DEFENSE

5-7. General

The defense is adopted only as a temporary measure until such time as the defender can again assume the offensive. During conduct of the defense, the defender strives to gain and maintain the initiative. To accomplish this, the attacker is continually harassed by fires and offensive maneuver when appropriate. The defender uses all means available to detect an enemy weakness and maintains sufficient flexibility in his planning to exploit those that occur. All resources are employed to inflict maximum destruction on the enemy force.

5-8. Fundamentals

Fundamental considerations for planning, organizing, and conducting the defense are—

a. Proper Use of Terrain. Proper evaluation and organization of the battalion defensive area is essential to maximum use of available forces. That portion of the battalion area which provides good observation, fields of fire, and obstacles to the enemy and which favors the defender is lightly manned in favor of stronger forces in areas that afford the attacker an advantage. The natural defensive characteristics of the terrain are improved with assistance and advice from supporting engineers and by artificial obstacles, with due consideration for offensive maneuver and future operations. Use of minefields, chemical munitions, and obstacles will vary with the battalion's mobility. Those terrain features which, if seized, will afford the attacker an advantage are strongly defended. As the prime consideration, the commander analyzes the terrain to determine the key terrain whose retention is essential to the accomplishment of his mission.

b. Security. The commander must take necessary steps to avoid tactical surprise. Security measures are implemented at all levels of command to provide timely warning and information of enemy movements and to deny the enemy information of the plan of defense. Such measures include the positioning of security elements in the direction of the enemy and to the flanks of, and within, the area being defended. Units provide their own local security. Security involves more than the positioning of security forces; it also in-

cludes the measures taken to deny the enemy information concerning the plan of defense. Camouflage, counterintelligence, communications security, light and noise discipline, and fire control are examples of such measures.

c. Mutual Support. Consistent with accomplishment of the assigned mission and dispersion appropriate to the terrain, forces are placed to provide an exchange of defensive resources. Such resources may include fires, observation, or maneuver elements. The capability of mutual support may be attained laterally or in depth. Control of gaps is effected through surveillance, patrolling, obstacles, prearranged fires, and provision for maneuver elements to exploit or reinforce fires. Gaps are normally accepted between battalions rather than between companies.

d. All-Round Defense. In defensive planning, the battalion commander retains the capability to defend against enemy ground and air attacks from any direction. Principal forces and available supporting weapons are positioned to detect, engage, and destroy enemy ground forces and aircraft along their most likely avenues of approach, although provisions are also made to meet these attacks from other directions. Plans should be sufficiently flexible and reserves should be positioned to permit destruction of guerrilla forces, or destruction of forces delivered into the rear area by air. Terrain permitting, all-round defense is most economically insured by proper positioning of security forces and provisions for a highly mobile reserve capable of traversing the entire defensive area. In areas that are not accessible to mounted forces, security elements must be employed in sufficient strength at critical points to defeat or contain enemy forces and prevent disruption of supporting operations of the defender.

e. Defense in Depth. Units must be disposed in depth forward of the key terrain which must be retained to accomplish the mission. Adequate depth is essential if the enemy is to be stopped and ejected by reserves in the event he forces entry into the battle area. Accordingly, the commander provides for depth by locating the FEBA well forward of the terrain that must be held in order to accomplish the mission. The commander also insures that fires are planned in depth throughout the battle area.

f. *Responsiveness.* The battalion commander must retain the ability to influence the conduct of the defense, both to counter the enemy's attack and to seize the initiative if the enemy exposes a weakness or commits a tactical error. Since the enemy has the choice as to when, where, and with what portion of his available forces he will attack, the defender positions his forces and plans fires and movement to meet the widest possible range of contingencies.

g. *Maximum Use of Offensive Action.* Aggressive patrolling, raids, spoiling attacks, and counterattacks are among the means by which the offensive spirit is maintained. The defender plans to destroy or eject the enemy, if he penetrates the area that must be retained, to accomplish the mission of defense. The defender must be alert to regain the initiative and take maximum advantage of the mobility of organic or attached mechanized and armored units. The mobile defense embraces this fundamental to the maximum extent. The fundamentals of offensive tactics apply specifically to offensive action in the defense.

h. *Dispersion.* Consistent with providing for timely massing of forces and mutual support to accomplish the mission of defense, the defender deploys his forces to present the least remunerative target to nuclear and nonnuclear fires. The ability to mass forces at the time and place of the defender's choosing depends on the terrain considered in conjunction with the means of mobility available to the defender. The requirement to generate maximum combat power, as it involves the massing of forces, must be balanced against the risk of increasing vulnerability.

i. *Time Available.* Since the ability to examine the terrain in detail and plan for its best use is an advantage that accrues to the defender, every effort is made to prepare the defense in advance. The time available for the planning and preparation for the defense influences the employment of forces, preparation of obstacles, coordination of fires, and priority of tasks to be performed. The effectiveness of the defense depends not only on the length of time available for planning and preparation but also on how well time is utilized during the preparation phase. This fundamental also applies after the preparation phase since the defense is continually improved during the conduct of the defense.

j. *Integration and Coordination of Defensive Measures.* The success of the overall plan of defense requires the careful integration and coordination of the following supporting plans:

(1) *Fires.* Both nuclear and nonnuclear fires are planned to support and complement the provi-

sions for security, defense in depth, and offensive actions. These fires provide for mutual support, all-round defense, and flexibility throughout the conduct of the defense.

(2) *Barrier (obstacle) operations.*

(a) The objective of barrier operations is the reduction, canalization, or stopping of the enemy's advance and the destruction of his combat power. A barrier is a coordinated series of natural and artificial obstacles employed to canalize, direct, restrict, delay, or stop the movement of a force, and to permit friendly forces to impose additional losses in personnel and equipment upon the opposing force.

(b) Barrier operations are undertaken at all levels of command, and are coordinated in detail with the defense, counterattack, fire support, and combat service support plans of the units concerned. Persistent-effect chemical agents can be used to restrict the use of terrain to the enemy or force him to take casualties if he traverses the contaminated terrain. Chemical mines can be integrated into the standard HE minefields (FM 20-32). Atomic demolition munitions may be used to provide large area fallout coverage to produce delayed casualties. However, the use of this munition will be highly dependent on weather conditions. Well-planned barrier operations restrict the enemy's ability to employ fully his combat power.

(3) *Defense against armor.* Fires and obstacles are coordinated to take full advantage of the limitations of enemy armor and the accompanying mounted or dismounted infantry.

(a) Fires of weapons with an antitank capability are planned to engage enemy armor at maximum ranges forward of the defense position. As enemy armor comes within range of direct and indirect fire weapons that do not have an ability to defeat armor, he is engaged by these weapons to force armored vehicles to close their hatches, thereby reducing their visibility. These fires are also used to force mounted infantry to dismount and to separate dismounted infantry from the armor.

(b) Weapons capable of defeating enemy armor are positioned in depth and their fires are planned throughout the defense position.

(4) *Air defense.* Active and passive air defense measures are planned to deny aerial observation of defensive positions and to provide maximum defense against hostile aircraft.

(a) *Active.*

1. Establish a warning system.

2. Assign areas of responsibility to organic air defense weapons teams and to other

weapons, to include individual and direct fire crew-served weapons.

3. Coordinate air defense deployment with air defense units in support or located within the battle area.

4. Normally, attacking aircraft and aircraft positively identified as hostile will be engaged unless specifically directed otherwise.

(b) Passive.

1. Enforce camouflage discipline to provide maximum concealment and cover.

2. Maintain dispersion.

3. Control movement.

4. Withhold fire if position disclosure would be detrimental to accomplishment of unit mission.

5. Enforce communications and electronic security.

6. Use smoke to decrease aerial observation and to reduce effectiveness of enemy aimed fire.

Section III. PLANNING THE DEFENSE

5-9. General

In planning the defense, the commander seeks to correlate the resources available with the terrain and to his mission. The defender has the initial advantage in that he selects the area to be defended. Additionally, he may dispose his forces to cause the enemy to mass and present a target in areas covered by prearranged fires. On the other hand, the attacker has the advantage of electing the time and place for offensive maneuver and normally has superior forces.

a. The defense plan or order includes the situation, mission, organization for combat, control measures, and tasks for subordinate units. It supports the scheme of maneuver and the plan of fire support to include air defense. These plans are developed concurrently and integrated to the maximum extent to insure maximum use of available resources.

b. Defense planning is continuous. Contingency planning is conducted concurrently with the basic plan. Transition to an alternate plan is considered in conduct of defense.

c. Defense plans must be simple and flexible, and their execution must be within the capability of forces known to be available at the time the plan is to be executed.

5-10. Sequence of Planning

In developing plans, the fundamentals of defense are considered throughout the process. They are closely related and are an integral part of the planning process.

a. The degree of resistance normally is designated by brigade or higher headquarters. Considerations which affect the choice of degree (defend, delay, etc.) include mission, the enemy, the terrain, and troops available.

b. Planning for the defense is initiated with the receipt of the mission. The battalion commander and his staff follow a logical sequence to complete their command and staff actions.

(1) First, the mission is analyzed so that all tasks, both specified and implied, are determined.

(2) Next, the staff provides all current information to the commander to assist him in completing his mission analysis and in formulating his planning guidance.

(3) Based on this information, his knowledge of the situation, a study of the mission and map, and application of his professional experience and judgment, the battalion commander formulates and issues his planning guidance. The guidance may be in general terms or, if the particular situation requires, it may be in detail. It usually includes possible courses of action which the commander desires the staff to consider during their reconnaissance and in formulating their estimates. It normally includes a general trace of the FEBA and location of subordinate elements.

(4) After issuing his planning guidance, the commander and staff conduct a reconnaissance of the area to verify their map analysis and to complete the formulation of courses of action. Staff estimates will be completed and the best course of action recommended.

(5) Upon receiving recommendations from his staff, the commander completes his own estimate and arrives at his decision. Normally, this action will be accomplished rapidly; however, there may be times when the commander will consult with commanders of subordinate units prior to announcing his decision. The decision is an expanded statement of the course of action selected as a result of his estimate and includes the trace of the FEBA, designation of the forces to occupy the FEBA, composition and mission of the reserve, priority of fires, and any nuclear fires to be employed to complement the scheme of maneuver.

(6) After announcing his decision, the commander may elaborate on it to provide the staff with his concept of how he visualizes the selected course of action will be conducted. This commander's concept will provide the staff with addi-

tional guidance to assist them in preparing the necessary plans and orders. The commander's concept may include explanation or clarification of—

(a) Location and composition of the COP forces.

(b) Tentative allocation of artillery final protective fires.

(c) Use of chemical or nuclear weapons if appropriate.

(d) Location and employment of the reserve.

(e) Provision for rear area security.

(f) Guidance for the employment of specific units.

(g) Guidance for counterattack planning.

(h) Guidance for air defense planning.

(i) Priority of tasks.

c. An evaluation of the terrain to be defended in conjunction with forces available forms the basis for organization of the defense. The terrain is evaluated from the viewpoint of the enemy and his known capabilities. Avenues of approach into the position are analyzed in relation to probable enemy use. Natural obstacles are identified as to their effectiveness. Observation, key terrain, fields of fire, and relative defensibility of areas are evaluated in relation to advantages and disadvantages imposed. The terrain is tentatively divided by the commander, and the strengths and weaknesses of each portion are examined to determine the relative tasks imposed on forces that undertake its defense. The commander then visualizes the forces essential to accomplish the mission in relation to the terrain to be defended.

d. After the terrain is evaluated, the commander considers his resources. Terrain is allocated to subordinate defending forces in relation to their capabilities, with due consideration for equal defensive tasks.

e. In analyzing the area to be defended, consideration is given to improving the natural defensive strength of the terrain to the maximum extent possible, consistent with plans for subsequent operations. Natural obstacles may be extended or improved with mines and other artificial obstacles.

f. During analysis of the terrain, consideration is given to likely target areas for interdiction. These areas will normally be defiles on expected routes of movement of the attacker, assembly areas for massing of attacking elements, and other sensitive locations that appear essential to an attacking force.

g. Planning should include provisions for employment of maneuver forces forward of the defensive position in a spoiling attack and to disrupt or destroy operations in the enemy rear areas. In conduct of the defense, the defender seeks to reduce the effectiveness of the enemy's strength, while making maximum use of his own combat power.

5-11. Control Measures

Control measures used in the defense normally include the general trace of the FEBA, boundaries, coordinating points, assembly areas, and blocking positions.

a. *General.* The trace of the FEBA provides orientation and reference for commanders at all levels for the planning and conduct of a defense operation. An appreciation of the process by which the FEBA is selected is important to the understanding of the defense.

(1) The FEBA normally is indicated to a subordinate command by coordination points located on the lateral boundaries of that command.

(a) The general location of the FEBA indicates to the subordinate commander the area that must be protected (the battle area). The indication is in sufficient detail to provide for continuity and coordination of the overall defense position, and at the same time permit the subordinate commander maximum latitude in using terrain available to the best advantage.

(b) The FEBA becomes more precisely defined at successively lower levels of command; that is, a higher commander indicates a FEBA to the subordinate commands that he employs in his forward defense area. Subordinate commanders in turn indicate a FEBA to the commands which they employ in their forward defense areas.

(c) To further define the FEBA, the commander may direct a trace (location) of the FEBA to a subordinate command using coordination points and a broken line connecting those coordination points. This technique is normally employed when the FEBA does not follow an easily identifiable terrain feature or when the commander desires to be more specific as to the exact location of the FEBA.

(2) The actual FEBA is ultimately determined when the forward platoons are deployed on the ground in the forward defense area.

b. Boundaries.

(1) Boundaries define areas of responsibility. They include areas within which units may fire and maneuver without interference or clearance

with other units. The boundaries between forward companies divide the battalion frontage in relation to the natural defensive strength and relative importance of the defense areas. Boundaries are located to assign to the same unit responsibility for the defense of each key terrain feature and avenues of approach to it.

(2) When the COP is controlled by the battalion commander, company boundaries are extended forward to points short of the COP. If the COP is controlled by the forward company commanders, the boundaries are extended forward to the limit of effective ground observation. The end of the boundary indicates the limit of territorial responsibility. Boundaries extend far enough forward to allow companies on the FEBA to position local security and to control supporting fires. Boundaries normally coincide with easily recognized terrain features. Boundaries between forward companies are extended to the rear to provide adequate areas for companies to organize their defense.

c. Coordinating Points.

(1) Coordinating points on boundaries fix the location at which a higher commander desires adjacent subordinate commanders to coordinate their defenses. The brigade commander designates coordinating points on the battalion boundaries at the FEBA and will designate coordinating points along the COP if a COP is established. Battalion commanders designate coordinating points within the battalion boundary subject to approval of the brigade commander.

(2) A coordinating point should be located at or near a terrain feature easily recognized both on the ground and on a map. Commanders (or their representatives) coordinate at these points and determine whether the area between their units should be covered by fires, barriers, physical occupation, or some combination of these means. When subordinate commanders believe that a coordinating point should be relocated, they recommend a change to the commander who designated it. Battalions may, without permission from higher headquarters, refuse their flanks from designated coordinating points on the FEBA to obtain adequate security. Flanks must not be refused, however, to the extent that dispositions and fires cannot be coordinated with adjacent commanders to achieve a continuous defense. Effective surveillance must be maintained in a gap between an adjacent unit.

d. Blocking Positions. Blocking positions are locations organized to deny the enemy access to a given area or prevent his advance in a given direc-

tion. They are organized for all-round defense and normally established on the terrain that dominates likely avenues of enemy approach.

e. Assembly Areas. Assembly areas are general locations designated for occupation by dispersed reserve elements not employed in blocking positions. Locations selected are based primarily on the reserve element's mission and mobility, concealment and cover provided, and the availability of routes of entry and exit.

5-12. Organization for Combat

a. General.

(1) Organization for combat is the combining of the various means available under a command and control structure to provide the control, coordination, and support necessary to maneuver or position combat forces to gain an advantage over the enemy. In defense, the available forces are normally applied against the requirements for the forward defense echelon, reserve echelon, and security echelon, in that order.

(2) The commander may not have sufficient combat forces to satisfy the requirements from each echelon. When this occurs, the commander must adjust the allocation of forces to each echelon to produce the best possible organization for combat to accomplish the mission. Brigade must be advised of any significant weakness in the defense position due to inadequate forces.

(3) In organizing for combat, the commander must give consideration to the mission, flexibility in organization, contingencies, essential forces to execute contributory missions, and adequate security.

(4) Forces are formed in an appropriate task force to execute the tasks visualized by the commander. Available combat forces are applied against the requirements for establishing security, occupying the forward defensive positions, providing a reserve, and discharging contingency missions.

b. Maneuver Battalions. Battalions are organized for combat to accomplish the assigned mission. They may be employed as pure (single arm), infantry-heavy, tank-heavy, or balanced units. Combinations of tanks and infantry are determined for each situation to exploit their characteristics.

(1) A pure infantry battalion, dismounted or mechanized, is capable of delaying or defending against forces of equal or less mobility. This type organization is normally employed when tanks are not available, when there is little or no armor threat, where terrain restricts vehicular movement, or when specific terrain must be retained.

(2) An infantry-heavy battalion task force has, in addition to the capabilities of a pure battalion, an increased antitank and counterattack capability. This organization is employed where terrain does not unduly restrict vehicular movement and where long-range tank fires and shock effect are desired. It is normally employed in the forward force of mobile defense.

(3) A tank-heavy task force has, in addition to the capabilities of a pure battalion, a higher degree of antitank capability and offensive capability, but a lesser capability to retain terrain. This organization is employed when a strong mobile reserve is desired, where there is good trafficable terrain, where terrain offers little cover and concealment for infantry, or when a strong security force is desired. This type task force is not normally employed to retain specific terrain since such a mission does not capitalize on the offensive capability of the tank-heavy force, and it requires a higher ratio of dismounted infantry during periods of reduced visibility.

(4) A balanced task force has generally the same capabilities as the tank-heavy task force, with a lesser degree of antitank protection and offensive capability, but a greater capability of retaining terrain. Such an organization is employed when a mobile reserve of tanks and infantry is desired, where there is good trafficable terrain, when the enemy situation is vague, or in the forward forces of the mobile defense.

5-13. Control

a. The battalion commander defines sectors of defensive responsibility for subordinate elements by designation of flank and, occasionally, rear boundaries. Flank boundaries extend forward to the limit of ground observation and to the rear to provide subordinate units adequate maneuver space for placement of forces. In the event the forward elements are providing the COP forces, the flank boundaries are extended forward through the security echelon position and to the limits of ground observation. Rear boundaries are used for control of the area of responsibility.

b. Normally, the commander prescribes assembly areas or blocking positions for the reserve or its elements.

5-14. Communication

a. To control the defense, the commander plans adequate communications with higher, subordinate, adjacent, attached, and supporting units. All means of communication are used—radio, wire, messenger, visual, and sound—taking maximum advantage of the characteristics of each means.

b. Wire is a principal means of communication in defense. When wire is adequate, radio becomes a secondary communications means. However, radio nets remain open in case wire communications are interrupted or become inadequate. Use of radio is normally restricted, except during periods of enemy contact, to guard against disclosure of information of friendly strengths and dispositions. Pyrotechnics and other visual signs are frequently used in the defense for identification of friendly units and to control supporting fires.

c. Operational necessity may dictate transmission of messages in the clear during fast-moving situations such as mobile defense where reaction time is critical. Simple, concise, fragmentary orders in the clear by voice radio will be common at the lower echelons of command.

d. For detailed considerations of communications during the defense and actions of the communications officer and platoon, see appendix F.

5-15. Security Forces

In planning his defense, the battalion commander insures that adequate provision is made for all-round security. Consideration is given to the degree of security provided by security elements of the corps, division, and brigade—covering forces, GOP, and COP. For additional guidance concerning the augmentation of trains, supply by air, evacuation and destruction, and vulnerability of trains, personnel of a tank-heavy or infantry-heavy mechanized infantry battalion task force, see FM 17-1.

a. *Covering Force.* A covering force is normally established by corps headquarters to provide security forward of the GOP. This covering force has the mission of delaying the enemy forward of the GOP for a specified period to provide time for the preparation of defensive positions, to disorganize and delay the attacking enemy forces as much as possible, and to deceive the enemy as to the location of the main battle position. Forces assigned to a covering force carry out their mission primarily by means of delaying actions.

b. *General Outpost.*

(1) The GOP is the division security element. It is organized and controlled by the division to intercept, engage, delay, disorganize, and deceive the enemy. It provides security for the division by observation, reconnaissance, attack, or defense, or by any combination of these methods. Corps prescribes the location of the GOP; however, the division may be asked to recommend a location. Although corps has the responsibility for design-

nating the location of the GOP, division organizes and controls the GOP force.

(2) The GOP within a division sector may be a brigade, a battalion task force, or the armored cavalry squadron reinforced. When an infantry battalion is assigned the GOP mission, it is normally reinforced with attached combat and combat support elements to enable it to accomplish a delay mission on a wide front.

c. Combat Outpost.

(1) The division commander prescribes the general location of the COP; however, the brigade commander will assign responsibility for the COP to his subordinate elements to insure continuous security across the brigade front.

(2) The COP is a security element for the brigade. The primary mission of the COP is to provide the brigade and battalions timely warning of the enemy's approach and to deny him close ground observation. Within its capabilities, the COP delays and disorganizes the enemy and attempts to deceive him as to the true location of the FEBA. The brigade commander prescribes the location of the COP and assigns responsibility to insure continuous security across the brigade front. The COP may be manned and controlled by either the forward battalions or the brigade reserve.

(3) The COP is located forward of the FEBA (desirably 1,000 to 2,400 meters) on the best available terrain from which it can accomplish its mission. Detailed organization of the COP is discussed in FM 7-11. Terrain selected for the COP ideally should—

- (a) Afford long-range observation and fire.
- (b) Take advantage of obstacles to the front and flanks.
- (c) Permit concealment and covered positions.
- (d) Provide concealed and covered routes of withdrawal.
- (e) Deny the enemy close ground observation.
- (f) Be within supporting distance of the battle area.
- (g) Control avenues of approach.

(4) The detailed composition of the COP will be prescribed by the battalion commander within the limits and requirements set by the brigade commander. Elements of the reserve company may be used to man the COP. The strength of a battalion COP will range from a reinforced rifle platoon to a reinforced rifle company. The COP is made as mobile as terrain and equipment permit. If the COP is provided with personnel carriers and tanks, it may place additional emphasis on

delaying and disorganizing the enemy. Judicious use of protective minefields and mined obstacles will increase the effectiveness of the COP in delaying and deceiving the enemy. Artillery and heavy mortar support are usually provided from positions within the battle area. When this is not possible, elements of either or both may be positioned forward of the FEBA.

(5) The battalion commander may require forward companies to establish the COP in their respective sectors. Tanks, antitank weapons, and radars may be employed with forces manning the COP. These forces, upon withdrawal of the COP, revert to their assigned primary positions and missions. When forward companies man the COP, the battalion commander normally delegates control of the COP to company commanders. He also may specify conditions under which the COP will be withdrawn. Elements of the reserve may also be attached to forward companies for the purpose of manning the COP.

(6) Usually, security elements of higher echelons are forward of the COP. The reconnaissance platoon normally operates forward of the COP and maintains contact with friendly elements to the front. If no friendly forces are forward, the platoon gains and maintains contact with the enemy. The commander may elect to use the platoon in an economy-of-force role on the COP prior to occupation by forces from the forward defense echelon or reserve.

(7) The COP may recommend targets for nuclear weapons. It does not engage in close combat.

(8) The COP withdraws over previously reconnoitered routes. Contact with the enemy is then maintained by patrols and by observation from forward defensive positions. The COP is withdrawn when it has accomplished its purpose and before the enemy threatens to envelop or close with its elements. The COP or company commander (as appropriate) provides timely information to the battalion commander and adjacent unit commanders on plans for, and the contemplated time of, withdrawal. If a portion of the COP loses communication with its parent company, its local commander may withdraw it when it has accomplished its mission or when necessary to prevent capture or destruction. The COP commander makes every effort to notify his company commander and commanders of positions adjacent to the outpost of the contemplated withdrawal. If the enemy is repulsed or does not press his attack, security elements, including the COP, are pressed forward to regain contact.

5-16. Forward Defense Forces

a. The forward defense echelon is organized to carry out its basic mission—defense. Trace of the FEBA, boundaries, and coordinating points delineate responsibility for the defense of the battle area to subordinate units.

b. In the mobile defense, commanders of the forward defense forces organize their areas by establishing defensive positions augmented by observation and listening posts and patrols. The positions are organized for all-round defense by elements varying in size from company to battalion task force. This location controls terrain and dominates avenues of approach and is occupied in depth to the extent permitted by time and troops available. These forces (the minimum necessary to accomplish the mission) are normally infantry-heavy, and require mobility equal to or greater than the force they oppose.

c. In the area defense, the commander organizes the forward defense area into defensive positions to provide good fields of fire, and observation, and to take advantage of the natural defensive strength of the area. He prepares positions to block avenues of approach at the FEBA and in depth to control the area. The commander increases the natural defensive characteristics of the terrain as time permits by using artificial obstacles, improving natural obstacles, constructing fortifications, and other barriers.

d. Allocation of Combat Power to the Forward Defense Forces.

(1) The disposition of platoons and companies in the forward defense forces, the width of the sector assigned to each, and the specific locations of blocking positions selected for preparation and occupation depends on the mission; the size, trafficability, and natural defensive strength of the areas to be defended; enemy capabilities; and the capabilities of the defending force.

(2) Forward elements of the mechanized infantry battalion employed on the FEBA habitually dismount to conduct the area defense. However, carriers, with the driver and a gunner, are normally positioned in the defense area where the carrier-mounted weapons can participate in the defensive fires. In determining mechanized infantry forces to be employed on the FEBA, consideration must be given to firepower available from carrier-mounted weapons and attached tanks, ability to move elements quickly to supplementary or alternate positions, conduct of delaying actions, and rapid movement of reserves and firepower during a counterattack.

e. Frontage and Depth.

(1) In determining the width and depth (fig

5-5) to assign to a company in defense, the battalion commander considers the ability of the company to defend along the FEBA with the forces available to the company and still retain an adequate company reserve. This determination involves consideration of the enemy's strength and capabilities relative to those of the defending forces and the terrain available for defense.

(2) The front assigned forward companies of the battalion should not exceed the capabilities of those companies to achieve mutual support between forward platoons. A platoon under average conditions can physically occupy about 400 meters of frontage, and can achieve mutual support with adjacent platoons across unoccupied areas by interlocking the fires of weapons available at platoon level. A company employing two platoons along the FEBA can be expected to defend a frontage of 1,000 to 1,500 meters. Conditions that limit fields of fire reduce the frontage a company can effectively defend. The attachment of additional forces to the company may allow an increase in frontages assigned.

(3) It is desirable to assign narrower frontages to companies defending astride good avenues of enemy approach. The battalion avoids dividing the responsibility between two companies for avenues of enemy approach, and assigns responsibility for the defense of each terrain feature located along the FEBA to a specific company, wherever possible.

(4) The depth assigned to a forward company should provide sufficient space to dispose the reserve platoon in primary and alternate positions from which it can achieve mutual support with, and block penetration of, the forward platoons. It should also include terrain suitable for supplementary positions from which the reserve platoon can defend the flanks of the company battle area. The depth should be sufficient to provide suitable terrain within the battle area for locating the command post, the company mortars, and company trains.

(5) In determining the depth to assign the forward companies, the battalion commanders must also consider where blocking positions of the battalion reserve are to be located to achieve defense in depth within the battalion battle area. The depth assigned forward companies does not normally include those blocking positions required for the battalion reserve.

(6) The frontage and depth that may be assigned to a forward mechanized rifle company, although based on the same factors discussed above, may be greater than those associated with the rifle company. The additional capability of the mecha-

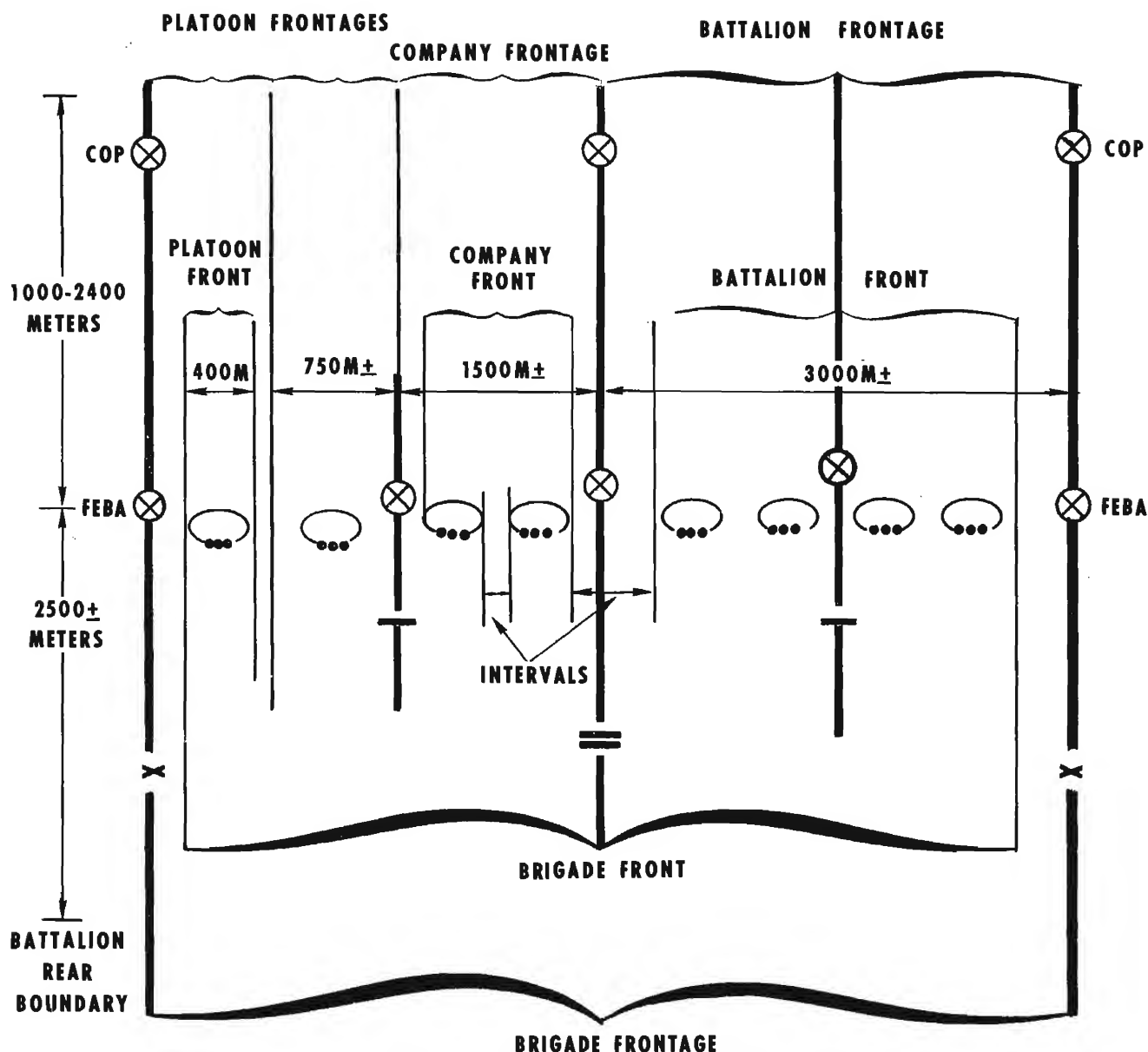


Figure 5-5. Frontage and depth.

nized company results from its greater number of automatic weapons available and its increased mobility.

(7) A gap is that portion of an interval, or unoccupied area, that cannot be covered by small-arms fire. Units below battalion should not allow gaps between positions within their sector. If gaps must exist, they should be between battalions rather than within a battalion. Intervals, or unoccupied areas that can be adequately covered by small-arms fire, are accepted.

5-17. Reserve Forces

a. General. The commander organizes the reserve to destroy or repulse the enemy by offensive

action and prepares it for timely commitment on battalion order. If the enemy attack is of such magnitude that the battalion cannot counterattack, it employs the reserve in a blocking role to assist in containing the enemy's penetration.

b. Battalion Reserve.

(1) Concurrently with determining the forces required in the forward defense area, the battalion commander determines the size, location, and employment of the reserve. It may consist of troops and nuclear weapons, or troops alone. Appropriate missions for the battalion reserve include—

(a) Providing the battalion portion of the brigade COP, if appropriate.

(b) Preparing and occupying blocking positions.

(c) Conducting counterattacks.

(d) Assisting forward companies, when practicable, through use of organic fire support.

(e) Providing flank and rear area security.

(f) Assuming the mission and occupying the area of a forward company on order.

(2) The primary, alternate, and supplementary positions of the reserve are selected so as to provide defense in depth, all-round defense, and flexibility.

(3) When the battalion commander requires the reserve to prepare designated alternate or supplementary positions, he specifies the priority of construction. When the battalion reserve is not preparing positions, providing the COP, or performing surveillance missions in the battalion rear area, it normally occupies those reserve positions having the highest priority for defense. Such positions may be completely occupied, or they may be occupied with skeleton forces with the remainder of the reserve dispersed in covered, concealed areas nearby.

(4) The reserve must be prepared to move quickly to threatened areas. Helicopters may be used to shift reserves rapidly over great distances. In the mechanized and airmobile infantry battalion, carriers and helicopters provide a capability to concentrate reserve elements rapidly from dispersed positions to participate in a counterattack. This mobility allows rapid assembly and counterattack or movement to primary, alternate, or supplementary blocking positions.

5-18. Coordination of Fires

a. Preparation. The defender's knowledge of the terrain and thorough preparation of his fire plan are among his key advantages which offset the initiative of the attacker. The battalion commander fully integrates his fire support and battalion-controlled direct fires with the fire plans of his subordinate elements, adjusting his initial fire support plan, or directing changes in fire plans of his subordinate elements as necessary to achieve the highest possible degree of coordination.

b. Company Fire Plans. Unit fire plans are prepared by each company to include the fires of all crew-served weapons and all available supporting fires required. These unit fire plans become a part of the battalion fire plan and are reviewed at battalion to insure that fires are coordinated at unit boundaries. Supporting fires when requested by subordinate unit and approved are incorporated into the battalion fire support plan.

c. Coordination of Fire Plan. The success of the defense is determined largely by the coordination of fires of the defending force. The employment of all fires must be closely coordinated to insure that maximum effective fire is brought on the enemy throughout the conduct of the defense under any condition of visibility. Planned fires include:

(1) *Long-range fires.* Long-range fires are planned to engage the enemy as early as possible to inflict casualties, to delay his advance, and to disrupt his organization. These fires consist of the fires of the COP and supporting weapons within the battle position capable of long-range fire. The enemy is engaged by long-range weapons as soon as he comes within range. The volume and destructiveness of fire increases as he continues his advance and comes within range of additional weapons.

(2) *Close defensive fires.* Close defensive fires are planned to destroy the integrity of the attacking force before an assault can be mounted by inflicting casualties; by disrupting command, control, and communications; by reducing observation; and by neutralizing hostile supporting weapons. They include the fire of all individual and supporting weapons, including carrier-mounted weapons, which can be brought to bear on the attacking force. They are planned to engage the enemy from the time he enters his attack position through his conduct of the attack until he reaches the final tactical wire or launches an assault. Weapons open fire during the close defensive fire phase when the enemy comes within maximum effective range of particular weapons. If it appears that the enemy is unaware of the location of the FEBA, to gain surprise the fire of flat-trajectory weapons, except designated tanks and antitank weapons, may be withheld until the enemy is most vulnerable to the massed fires of all weapons.

(3) *Final protective fires.* Final protective fires (FPF) are fires planned to prohibit or break up the enemy assault on the forward defense area. These fires consist of prearranged fires of supporting weapons and include machinegun final protective lines (FPL) and mortar and artillery (indirect) FPF. Only those weapons whose FPF are in front of the threatened unit fire their assigned fires; all other available weapons use observed fire to supplement or reinforce the FPF in the threatened area. Direct fire weapons engage targets of opportunity while indirect fire weapons fire targets in front of the threatened area to reinforce FPF or to engage other targets. Indirect FPF (artillery and mortar) are an immediately available prearranged barrier of fire designed to

protect friendly troops or installations by impeding the movement of the enemy across defensive lines or areas.

(a) The artillery and mortar FPF are integrated with the FPL of the machineguns. Each artillery battery will normally fire one FPF. The mortar platoon of the battalion may fire one or two FPF; however, the most effective means of employment of the mortars is to fire one FPF (see FM 7-11 for a discussion of 81-mm mortar FPF).

(b) A single FPF of a 4.2-inch mortar platoon is, under normal conditions, 200 meters wide and approximately 150 meters deep (subject to range dispersion). The mortar platoon may be split and may fire two FPF, each 100 meters wide. The 105-mm howitzer battery FPF is 200 meters wide and approximately 150 meters deep. The 155-mm howitzer battery FPF is 300 meters wide and 150 meters deep. The depth of a FPF is not fixed. It will depend upon such factors as the bursting area of the round, the range dispersion, and the howitzer formation. If necessary, the pattern of an FPF may be varied to fit the tactical situation. Because of the relatively slower rate of fire, the 8-inch howitzer and the 175-mm gun batteries are not normally assigned FPF.

(c) The FPF of the direct support artillery are available to the supported brigade and its battalions. The FPF of any artillery reinforcing a direct support battalion are also normally available. The FPF from general support and general support-reinforcing units may be allocated when requested. The brigade commander designates the general areas for available FPF or allocates them to the maneuver battalions. The maneuver battalion commander, in turn, designates general locations or allocates them to maneuver companies. The precise location of an FPF is the responsibility of the company commander in whose sector it falls. The exact locations of FPF within each forward company are included in the fire plan and reported to battalion.

(4) *Fires within the forward defense.* Fires are planned within the forward defense area to limit penetrations and to support counterattacks. All available fires are used to limit a penetration, to prevent enemy reinforcements, and to destroy the enemy within the penetration.

5-19. Nuclear Fires

Nuclear and nonnuclear fires are planned concurrently since they are designed to complement and support each other.

a. When nuclear fires are used, they may dominate the defensive fire plan. To the extent possible,

areas most critical to the success of the enemy attack are planned as on-call nuclear targets. These areas include locations where the enemy may be expected to mass, such as at crossing sites, attack positions, and assembly areas. Nuclear weapons systems are dispersed and occupy firing positions for as brief a time as possible. Primary, alternate, and supplementary positions are surveyed in advance.

b. The plan for the use of nuclear weapons should include, as far as practicable, complete data on all on-call target areas: the size of each area, the number and yields of nuclear weapons required to produce desired results, and the appropriate designated ground zero and height of each burst. With this information, the commander can strike targets that become important to the defense as the situation develops.

c. Troop safety is an important consideration, particularly when nuclear weapons are used for close-in fires and to support counterattacks. The commander normally will state the friendly troop degree of risk he will accept.

5-20. Counterattack

a. The counterattack is an attack by a part or all of a defending force against an enemy attacking force for such specific purposes as regaining ground lost or cutting off or destroying enemy advance units. The general objective of the counterattack is to deny to the enemy attainment of his purpose in attacking. In sustained defensive operations, the counterattack is undertaken to restore the battle area and is directed at limited objectives.

(1) In the area defense, counterattack planning is initiated as soon as the general defensive scheme of maneuver is reasonably firm, and it is continued throughout the conduct of the defense. Priority for planning is directed toward eliminating those enemy penetrations which would most seriously threaten the integrity of the battalion sector. Plans are continued for other penetrations and are prepared in order of their threat to the battle area in the light of enemy capabilities.

(2) In the mobile defense, the defender (in selecting the battle area) seeks to force the enemy to react in conformity with the defensive plan based on planned maneuver and fires, and obtains the initiative in exploiting enemy weaknesses and errors by seizing every opportunity to destroy enemy forces by offensive action. The commander conducting the mobile defense considers counterattack and defensive planning concurrently with emphasis on planned maneuver.

b. In the case of multiple penetrations, the initial priority for counterattack planning must include destruction of the penetration that would most endanger the defense. Normally, the commander designates likely penetrations, their priority for destruction, and all aspects that he desires integrated into the plan. The commander of the force expected to conduct the counterattack normally performs the detailed planning and submits his plan to the battalion commander for approval.

c. At the battalion level, a counterattack is a limited-objective attack designed to destroy the enemy within a penetration, or eject him and regain lost portions of the battle area. The battalion reserve normally provides the maneuvering force, but the counterattack plan provides for including in the force other organic, supporting, and attached elements. The maneuvering force is supported by the weapons of the battalion, including, where practicable, weapons of forward company elements still intact. Normally, a single coordinated effort is made by a force having adequate combat power to accomplish the mission. Piece-meal attacks are avoided. Passage through friendly troops is avoided to the extent practicable. All friendly elements within the penetration area are attached to the commander of the maneuvering force.

d. The battalion commander prepares counterattack plans and assigns priority to those plans which assume the loss of, or threat to, the most critical terrain. Detailed planning for the counterattack is accomplished by the commander of the reserve unit in conjunction with the battalion staff and supporting units. Plans are rehearsed for day and night implementation as time and security permit. In any event, reconnaissance and rehearsal by participating key personnel is necessary.

e. A counterattack plan (fig 5-6) has the usual features of any attack plan. Special consideration is given to the following:

(1) *Assumed enemy penetration.* The commander must make an estimate as to the width and depth of a penetration he can tolerate and still be capable of eliminating it by counterattack. He considers the terrain and combat losses associated with possible enemy maneuvers and develops assumptions as to battalion strength and capabilities that would remain. The maximum acceptable width of penetration that can reasonably be eliminated with battalion forces is normally that of one attacking company (500-800 meters). The acceptable depth is dependent on the terrain, but is

normally no deeper than the reserve of the companies occupying the FEBA.

(2) *Objective.* The objective assigned to the maneuver force is usually a terrain feature within the penetration whose seizure or control will restore integrity of the battalion defense area.

(3) *Direction of attack.* A direction of attack is selected which will favor unity and concentration of effort, control of the maneuver forces, effective fire support, and security. Normally, the attack is directed at the flank or base of the penetration over a route that avoids friendly defense areas. The use of nuclear fire support may make an attack against the nose of the penetration feasible.

(4) *Line of departure.* In a counterattack, the LD is usually the line of contact. It should be located on an easily recognizable terrain feature and where the commander estimates the line of contact will be when the counterattack is initiated.

(5) *Time required to initiate attack.* Consideration must be given to the time required to prepare and deliver all fires in support of the counterattack, and where necessary, to make a tactical assessment of results, and to move the counterattacking force from safe areas to the LD in designating the actual time of the attack.

(6) *Attack position.* An attack position is designated but is frequently not used unless essential for the conduct of the attack. It is normally the last covered and concealed position behind the LD.

(7) *Route.* The route selected for movement of the counterattacking force to the LD is as direct as the situation and plan of maneuver will permit. It takes maximum advantage of concealment and cover.

(8) *Composition of the maneuver force.* In executing the counterattack, the commander commits all the means necessary to accomplish the mission in a single, decisive effort. The counterattack force has priority for all available resources to assure quick success.

(9) *Blocking force.* The unit responsible for blocking the enemy is designated. Blocking forces may be (but are not normally) attached to the maneuver force when it conducts the counterattack. If the penetrated units do not have the capability of containing the penetration, elements of the battalion reserve are designated as the blocking force, and responsibility for conducting a counterattack is assumed by brigade or higher echelon.

(10) *Fire support.* Fire support is obtained from organic, attached, and supporting weapons. The maneuver force is given priority. Plans for

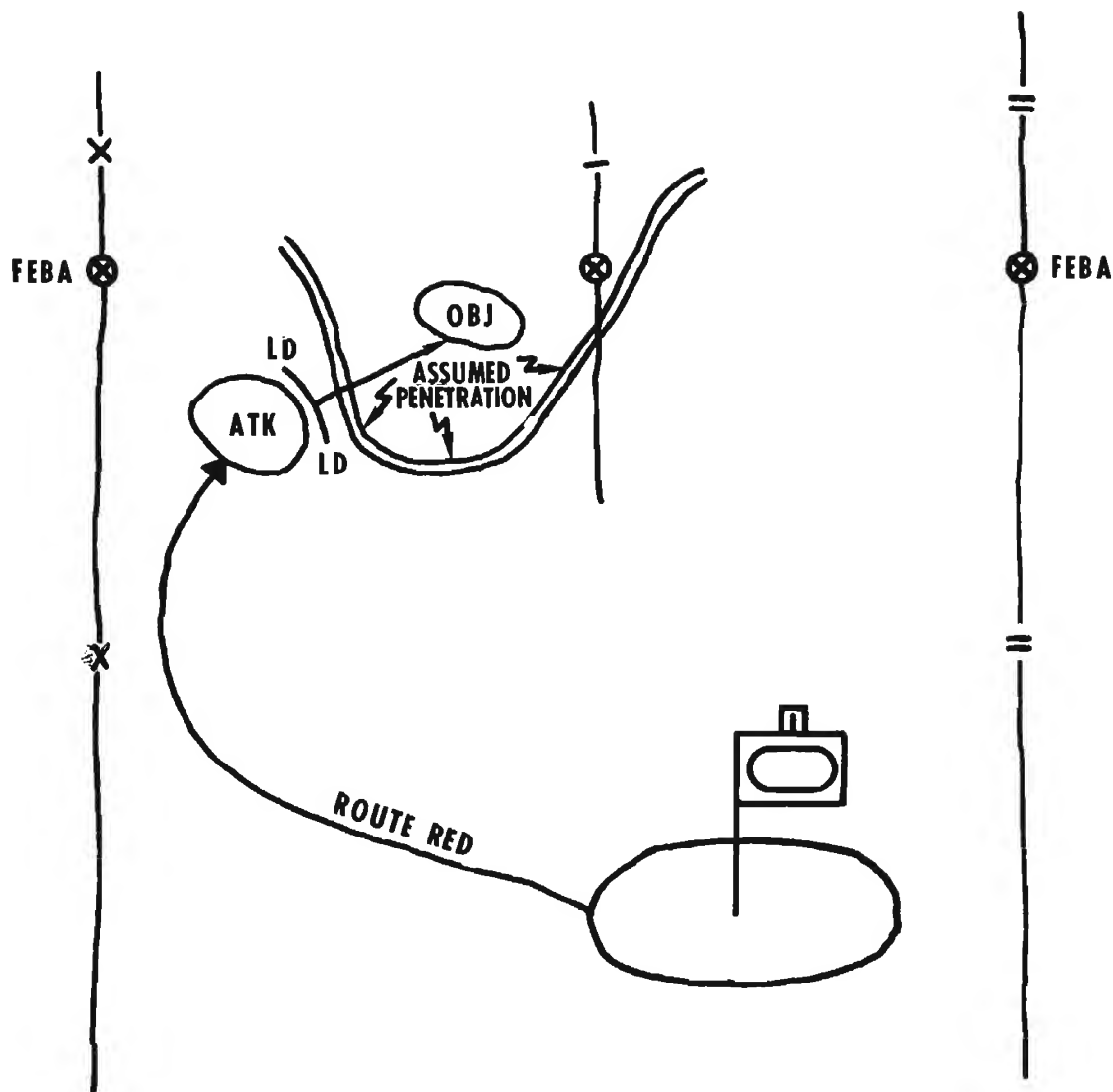


Figure 5-6. Battalion counterattack plan.

the use of nuclear and chemical weapons must insure that the obstacles (including radiation, tree blowdown, and chemically contaminated areas) created thereby will not adversely affect movement of the maneuvering force or accomplishment of the defensive mission when the battle area is restored.

(11) *Defense missions.* The battalion commander designates units to defend the penetrated area after it is restored.

(12) *Reserve.* As a part of the counterattack plan, provision is made for a temporary reserve to be reconstituted upon commitment of the maneuver force. If otherwise uncommitted, it is usually the reconnaissance platoon.

(13) *Other control measures.* Additional control measures used to facilitate a coordinated counterattack may include checkpoints, phase lines, contact points, and boundaries.

f. Adjacent commanders coordinate plans to eject the enemy from a penetration that would threaten both their areas. Higher authority is informed of such plans. Throughout all phases of counterattack planning, commanders emphasize simplicity and flexibility since it is seldom likely that actual penetrations and counterattacks will correspond closely with estimates and plans.

5-21. Spoiling Attacks

Plans for defense may include a spoiling attack launched against enemy forces that are forming for an attack. The spoiling attack can be carried out by troops or fire support means, or a combination of the two. Considerations for a spoiling attack include—

a. The spoiling attack delays, disrupts, or destroys an enemy's capability to launch an attack.

The objective is to destroy enemy personnel and equipment, *not* to secure terrain or physical objectives.

b. The spoiling attack should not be used if the loss or destruction of the force jeopardizes the ability of the command to accomplish the mission. Higher commanders normally limit the size of the attacking force.

c. The mobility of forces conducting the spoiling attack must exceed that of the enemy being engaged. Airmobile, armor, and mechanized forces are best suited for spoiling attacks.

5-22. Contingency Planning

Commanders must consider the possibility of failure on the part of defending forces or unexpected combat power on the part of the enemy. Plans must be sufficiently flexible to insure timely reaction to offset the unexpected and to preserve forces in the event the commander is unable to offset a threat to accomplishment of the mission. Until authorized or ordered to do so, a defensive position is not abandoned.

5-23. Security Measures

a. Units plan for and establish local security to prevent surprise and infiltration of their defensive positions. Security provided by forward companies consists of observation posts, listening posts, outguards, and patrols. The forward companies and the reconnaissance platoon patrol the area between the COP and the FEBA to maintain contact with the COP and to add to the security of the battle area.

b. The battalion commander is responsible for flank security. Subordinate units also institute security measures to provide for the security of the flanks of their positions. Defensive measures against airborne and airmobile attacks, guerrilla action, infiltration, and CBR attack are established. Patrols are employed forward of and within the defensive position to seek out the enemy and gain information of his activities. Other means used to contribute to security include electronic surveillance devices, infrared equipment, illumination, barbed wire, antipersonnel mines, and alarm devices employed forward of and within the battle area. Aviation and reconnaissance units are habitually used.

c. Passive security measures are highly important. Emphasis is placed on camouflage and concealment. Positions are intrenched as time permits with underground shelters provided whenever

possible. Overhead protection against enemy fires is provided if time permits.

5-24. Barrier Planning

The battalion commander plans for use of obstacles forward of and within his defensive sector which are incorporated in the brigade and/or division barrier system. Care must be exercised in siting the barrier system to avoid interfering with the capability of shifting units rapidly to meet any threat. Barriers are constructed with due regard to the location of defensive positions and the effect on the mobility of friendly forces, particularly in the counterattack. Conventional protective, defensive, or barrier minefields supplemented by toxic chemical landmines, when authorized, can be mixed into, or used to supplement, the barrier system to strengthen obstacles and assist in restricting use of areas by the enemy. Exploding flame devices, flame expedients, and illuminants can be prepared, controlled, and fired by forward elements to create obstacles. Natural obstacles are used to the maximum. Atomic demolition munitions (ADM) increase the effectiveness of natural and manmade obstacles. ADM are used to block avenues of approach, sever routes of communications, and create areas of tree blowdown and forest fires. ADM employment is discussed in FM 5-26. The construction of obstacles for close-in defense is the responsibility of the unit commander involved, and may be integrated with a barrier plan of a higher echelon. Normally, each combat unit commander is responsible for the construction of the obstacles in that part of a barrier system which lies within his area unless otherwise directed.

5-25. Deception

In developing his plan of defense, the battalion commander considers the use of deception measures which may cause the attacker to dissipate or misdirect his effort. The security force employs deception to cause the enemy to deploy his forces prematurely and attack lightly defended objectives. Dummy positions and equipment and simulated activities may accomplish economy of force and cause the enemy to execute unnecessary offensive action, rendering his force vulnerable to counteraction. Care must be exercised to preclude misunderstanding by adjacent units. These headquarters must be informed of the battalion's deception plan to insure cooperation and coordination.

5-26. Combat Support

a. *Artillery.* Fire support planning is conducted concurrently with the development of the scheme

of maneuver for defense and continues throughout the operation. Fire support plans, when forced, become a part of the commander's defensive order.

(1) The battalion fire support plan includes plans for all supporting fires, nuclear and nonnuclear, of organic, attached, and supporting elements. Fires are coordinated with units on the flanks, and the plan includes provisions for coordination of fires of subordinate elements.

(2) The battalion commander does not ordinarily direct employment of fire delivery means organic to subordinate elements.

(3) Attack helicopters may be used to deliver direct aerial fire support in areas not accessible to other fires. Close air support may be desirable when targets are beyond the range or capabilities of other fire support means, and naval gunfire (if available) can provide a large volume of fire in areas within range.

b. Engineer. The engineer company in support of the brigade along with other engineer elements will normally be employed to support the defense and perform engineer tasks. Engineers provide the battalion technical advice and assistance in improvement and construction of obstacles and barriers.

c. Communication. To control the defense, the commander must plan adequate communication. All means are used to the extent practicable.

(1) In the area defense, wire is a principal means of communication. When adequate wire communication is available, radio is used as a secondary communications means.

(2) Contingent upon the time factor, wire communication may be provided the COP. In the event wire is emplaced, plans must include provisions for a positive break in the system upon withdrawal of the COP.

(3) In a mobile defensive situation, primary reliance is placed on radio communication.

d. Army Aviation. Army aviation support is afforded the battalion by brigade and division organic aviation. Other required aircraft for support are provided by higher headquarters.

e. Chemical.

(1) Detailed plans are prepared to integrate the use of chemical agents with other fire plans, barrier plans, and the scheme of defense.

(2) Chemical agents may be used in support of forces along the FEBA, against enemy forces concentrating for an attack, and to support the

reserve in the execution of counterattacks. Chemical agent concentrations can be used effectively to assist in causing casualties, canalizing or containing the enemy along major avenues of approach, or to contaminate key terrain or likely enemy assembly areas. When chemical mines are authorized, it is normal to integrate them into high explosive minefields to increase their obstacle value and to make minefields more difficult to breach.

(3) Smoke can be used to obscure operations from the enemy by blinding enemy observation posts and by hindering enemy aerial observation and tactical air operations within the defense area. Smoke must be used with caution so as not to block essential observation by the defending forces.

(4) Since the battalion has no organic chemical unit, large-scale use of chemical agents by the enemy normally requires decontamination support from higher headquarters.

(5) For more detailed discussion on chemical support, see FM 3-10 and FM 101-40.

5-27. Combat Service Support

Planning for defensive operations includes consideration of available materiel resources and the capability for replacement of materiel expenditures. Similarly, combat service support agencies must be sufficiently flexible to sustain the operation through the anticipated period of defense.

a. The brigade coordinates allocation of materiel on a priority established by the defensive plan. Items in short supply are subject to controlled distribution, and adjustments are made to insure that essential requirements are satisfied. The battalion commander assigns further priorities.

b. Service support elements are positioned to preclude their interference with maneuver. In highly fluid operations, combat service support is positioned well to the rear, but those items that are expended at a rate exceeding the time and space factors for routine resupply are placed in a mobile status for immediate responsiveness to meet requirements. The basic consideration in locating the battalion trains is the support of the maneuver elements. For additional guidance concerning alternate methods of support, evacuation, and a more flexible train organization (particularly in the mobile defense) in a tank-heavy or infantry-heavy mechanized infantry battalion task force, see FM 17-1.

Section IV. CONDUCT OF THE DEFENSE

5-28. General

a. Conduct of the defense is initiated when security elements from a higher echelon pass through the COP, or forward positions if a COP is not employed. At that time, the COP initiates those actions previously planned but which have been suspended while other security forces were to their front. The tempo of aerial and ground reconnaissance is increased, and fire support registration is completed.

b. When the COP is withdrawn, forces occupying positions on the FEBA prepare to repel the attacker. Lanes through barriers and obstacles for passage of security forces are closed, local security is made aware of the situation, and surveillance means are employed to maintain a fix on the attacker. If enemy forces withdraw, reconnaissance is employed forward of the FEBA to locate and determine the enemy situation and, if appropriate, the COP is again established. If the attacker cannot be located within the unit area of responsibility, the commander makes appropriate recommendations for a reconnaissance in force beyond his area of responsibility to locate enemy forces; however, he does not initiate such action without approval of higher headquarters.

c. The decision to counterattack and its timing are based upon the commander's judgment or on orders from higher headquarters. When a penetration appears imminent or has actually started, the battalion commander advises higher headquarters, alerts the counterattacking force, increases surveillance over the threatened area, and provides all available assistance to subordinate commanders concerned.

(1) In the mobile defense, it is desirable to stop or slow the penetration before counterattacking; however, these conditions are not prerequisites. The counterattack should be launched prior to the time the attacking enemy can consolidate his gains and reorganize or regroup his forces.

(2) In the area defense, the commander counterattacks when the enemy has seized or threatens to seize terrain critical to the defense.

(3) The attack may be launched when the enemy presents his flanks or rear, when he becomes overextended, or when his momentum has dissipated.

(4) In the event the FEBA has been pene-

trated at multiple locations, the commander selects those penetrations which most jeopardize his mission, and he establishes priorities for their reduction. He does not fragment his reserve for reduction of all penetrations concurrently.

d. After commitment of the reserve, the commander reconstitutes another reserve from resources available to him. He will frequently impose conditions on the commitment of reserves under the control of subordinate elements whose positions are intact.

e. When information indicates a counterattack would not be successful, the commander advises higher headquarters and assumes a blocking role pending receipt of subsequent instructions.

f. Throughout the conduct of the defense, the commander considers conducting a spoiling attack. Its purpose may be to destroy a portion of the enemy force, throw the enemy off balance, or deny the enemy ground observation and surveillance of the defended area for a period of time.

5-29. Organizing the Defense

a. While the commander and staff are preparing the plan of defense, concurrent actions are taken within the battalion to prepare the unit for its defensive mission. Normally, when the brigade order is received, a warning order is issued to subordinate units and the battalion staff to alert them for the pending operation. Arrangements are also made for movement of the battalion, time and place of issuance of the battalion order, and personnel to be present. In the warning order, the battalion commander may announce general areas of responsibility and other planning information necessary for the staff to complete plans and for subordinate commanders to deploy their units.

b. When defending units arrive on position, they immediately begin organization of the defensive position. Many of the tasks involved are carried on concurrently, but some may require priority. The battalion commander may specify the sequence for the preparation of the position and any special precautions to be taken regarding camouflage. The following is a recommended sequence:

(1) Establish security.

(2) Position crew-served weapons.

(3) Clear fields of fire, remove objects masking observation, and determine ranges to probable target locations.

(4) Prepare weapons emplacements and individual positions, to include overhead cover and camouflage.

(5) Lay minefields and prepare important demolitions.

(6) Establish communication and observation systems.

(7) Prepare obstacles (other than minefields) and less vital demolitions.

(8) Select routes for movement and for supply and evacuation.

(9) Prepare alternate and supplementary positions.

(10) Prepare CBR protective shelters as required.

(11) Prepare deceptive installations in accordance with deception plans of higher headquarters.

c. The organization of the ground begins as soon as the troops arrive in the area and continues as long as the position is occupied. When it must be organized while the force is in close contact with the enemy, defense against attack may be required during any stage of the organization. Maximum use is made of available fires to cover the organization, and smoke may be used to deny the enemy observation of the preparation. Care should be exercised to employ smoke only on enemy observation points since smoke usually favors the attacker by concealing his movement and blinding the defender's observed fires.

d. Whenever practicable in mechanized infantry units, carriers are placed in hull defilade to allow use of the carrier-mounted weapon in support of the defense. The weapon, either on or off carrier, may also be employed in securing the flanks and rear of the defensive position. A primary consideration in the employment of carriers in the defense is that they be immediately available to facilitate rapid counterattacks or displacement of security forces. If time and the tactical situation allow, tanks are similarly placed in hull defilade (to include those in reserve) to facilitate conduct of the defense. Alternate and secondary positions should be designated and prepared for use when appropriate.

5-30. Conduct of Security, Forward Defense, and Reserve Forces

a. As the enemy comes under observation, he is subjected to long-range fires, including nuclear fires and toxic chemical agents, if appropriate. As he advances, he is brought under increasingly heavy fires. As he nears the FEBA, he is subjected

to close defensive fires of maximum intensity. If he succeeds in launching an assault, FPF and all other available fires are placed on him. The decision to call for FPF is usually delegated to leaders of platoons along the FEBA. They are fired only when needed, and are terminated and resumed as appropriate.

b. An aggressive antitank defense is conducted. Antitank weapons are employed against enemy armor well forward of areas occupied by troops and weapons and continue firing on armor penetrating the battle position. All available fires, direct and indirect, are delivered to force armor vehicles to button up, and to separate the tanks from dismounted and lightly armored elements.

c. When an attack in force appears imminent or has begun, the battalion commander advises higher authority, alerts the counterattack force, increases surveillance over the threatened area, and provides all available assistance to the subordinate commanders concerned.

(1) The commander makes a continuous estimate of the situation to determine when to counterattack. In making this determination, he decides whether the enemy penetration is a part of a major attack in depth which will have to be resisted by a larger blocking force, or a lesser attack wherein the enemy may be stopped. In the latter instance, a counterattack must be made promptly before the enemy can consolidate his position and resume the attack.

(2) While an unsuccessful counterattack may leave the defender off balance and risk defeat in detail, failure to counterattack at a decisive time will allow the enemy to regroup and leave him in possession of the initiative.

(3) The flanks and depths of the enemy penetration and the rate and direction of movement must be determined in order for the commander to make a sound decision as to when to initiate his counterattack.

(4) The counterattack is made with previously uncommitted forces which have full means to accomplish the mission. Its direction is such as to take advantage of enemy weakness and to seize the decisive objective which will permit reoccupation and restoration of the troop and weapon positions along the FEBA.

d. Piecemeal commitment of the counterattack force normally jeopardizes success. The counterattack is carried out rapidly and violently, employing all the combat power necessary to insure success. The brigade is immediately notified of the decision to counterattack. After a successful

counterattack, the battalion commander makes appropriate modifications to his defensive plan. If nuclear weapons are used, reoccupation of positions may be delayed or limited because of nuclear effects. If the counterattack fails to seize the objective, brigade is informed and units intrench and defend in place, holding any ground gained until further order or reinforcements are received.

e. Battalion reserves should be habitually prepared to counterattack enemy penetrations made at night. The advantages of familiar terrain, deliberate planning, and rehearsals are multiplied during darkness. Also, darkness will screen the movements of friendly reserves and make the enemy's exploitation of his penetration difficult. Darkness will also increase control problems for both the attacker and the defender. Thorough training and rehearsal of units and individuals is required to perform a night counterattack successfully. Since control problems will be magnified, special attention is given to night recognition procedures, clearly defined objectives, and coordination of attacking elements.

f. When careful consideration indicates that a counterattack would fail, the battalion commander so advises his commander and concentrates on limiting the penetration by all available means pending further instructions.

5-31. Battalion as Part of Security Forces

When the battalion is employed as a part of a corps covering force, or when the battalion is employed on the GOP, it organizes and conducts its operation as described in paragraph 5-15. Upon withdrawal, the battalion normally becomes a part of the reserve. For a further discussion of the conduct of the battalion when employed as the brigade COP, see FM 7-30.

5-32. Battalion as Part of Forward Defense Forces

a. *General.* When a battalion is assigned a sector on the FEBA in mobile defense, it organizes and conducts the defense of its assigned area (within a brigade area) as a delaying action (chap 6), an area defense (para 5-28—5-35), or some variation thereof. Every effort is made to canalize the attacker into certain areas to facilitate his destruction. Dependent on the situation, battalions in the forward defense area may be ordered to hold key terrain at all costs. When not committed to defend a specific terrain feature, a battalion in the mobile defense may move to one side and allow the attacker to bypass after inflicting damage on him initially by fire and offensive maneuver. Regard-

less of how the defense is organized and conducted, the battalion commander insures that the entire unit is positioned and prepared to fight and stay on its initial position if required by the situation or orders. It is imperative that the battalion commander have a full and detailed understanding of the brigade and division concept for conduct of the defense so that the organization of his assigned area, and subsequent conduct of the defense, will be in accordance with plans of these higher echelons.

b. *Area Defense by Forward Battalions.* The brigade commander may direct that specific terrain be retained when the retention of the terrain is essential to the integrity of the brigade position or when retention of the terrain will facilitate the canalization of the enemy into areas more favorable to the division. The mission of the battalion in this case is to stop, repel, eject, or assist in canalizing the enemy. The defending battalion is prepared to be isolated from other friendly forces and will refuse one or both flanks or occupy a perimeter when forced to do so by enemy action. If the enemy attack cannot be defeated or contained, the battalion will attempt to stop or canalize the enemy to support a counterattack by the brigade or division reserve. If the battalion is in danger of being overrun, it may be ordered to move to an alternate or successive defense position. In making withdrawals and adjustments, the battalion commander keeps his troops close to the enemy so that the enemy cannot use nuclear weapons without endangering his own troops. If the enemy withdraws after an attack, the battalion commander must be alert to conduct previously planned attacks to follow the withdrawals and reestablish the original defensive position as soon as possible.

c. *Delaying Action in Mobile Defense by a Forward Battalion.* When the battalion is employed in defense of those areas in which the brigade and/or division commander foresees an early withdrawal, it is assigned a mission to block, canalize, and delay the enemy and is employed on a relatively broad front with little depth. Reserves at company level are reduced as necessary to permit the battalion to retain a small reserve. The area assigned for defense is organized to offer as much resistance to the enemy as the terrain and the means available to the battalion allow. In any event, the battalion is prepared to conduct a delay, on brigade order, to positions within the brigade or division rear area designated by a higher commander. The positions may be blocking positions in the division reserve area which will assist in

limiting and containing enemy penetrations, or they may be assembly areas. Throughout the entire operation, the brigade commander exercises continuous control through battalion commanders; he may require them to secure approval before moving reserve or uncommitted companies.

5-33. Battalion as Part of Reserve Forces

a. A reserve battalion of a brigade in area defense may be assigned the following missions:

(1) Limit penetrations. The brigade commander designates blocking positions from which the reserve battalion can support forward battalions by fire, stop penetrations, canalize enemy maneuver, and complete all-round protection for the brigade battle area.

(2) Occupy flank positions. When the brigade has an exposed or lightly held flank, or when a gap separates the brigade from the adjacent unit, positions are designated and organized from which the reserve battalion can protect the flank or extend the battle area to counter enemy flanking actions.

(3) Counterattack, based on a brigade plan.

(4) Prepare a rear battle position to organize and conduct a defense similar to a unit on the FEBA.

(5) Establish the brigade COP or a part of the division GOP.

(6) Relieve a forward unit or replace a unit rendered ineffective by enemy action.

(7) Perform rear area security missions, to

include defense against airborne/airmobile attack, guerrilla action, and infiltration.

b. Companies of the reserve battalion are dispersed laterally and in depth throughout the reserve's area of responsibility. Supplementary positions are prepared to complete the defense in depth on all major avenues of enemy approach and to furnish all-round defense. Companies should be mutually supporting and may be echeloned toward exposed or lightly held flanks. When companies of the reserve battalion are not actually engaged they continue work on strengthening their defensive positions.

c. The reserve battalion gives priority to close defensive fires within the battle position to support its companies. Second priority is to long-range fire support of forward battalions. Under exceptional circumstances and upon approval of the higher commander, the mortars of the reserve battalion may be emplaced in the vicinity of a forward battalion to provide support. They withdraw to their primary positions in time to insure that their fires can support the reserve battalion when required.

d. If the reserve battalion has tanks attached, they are employed in the counterattack to provide antitank defense in depth and to otherwise reinforce the battalion. Their employment is coordinated with the employment of antitank weapons.

Section V. NIGHT DEFENSE

5-34. General

a. *Introduction.* Although there are differences in night defensive techniques, doctrine for the night defense is generally the same as for daylight; however, planning and control measures are more detailed for the night defense. Counterattacks or spoiling attacks to be executed during the hours of darkness avoid complicated schemes of maneuver or intricate coordination procedures which cannot be accomplished because of reduced visibility. The principal difference between daylight and night defense is in the organization of the security area and the greater use of surveillance aids, including night vision devices and anti-intrusion devices. Artificial illumination is also used to compensate for reduced natural visibility. Night vision devices can be used effectively in night defense operations by employing them in observation posts and in listening posts within and without the perimeter. Improved night visibility permits early detection, identification, and

engagement of enemy forces. Night observation devices are particularly effective when used in conjunction with ground surveillance radars.

b. *Echelons.* The echelons of forces in the night defense are unchanged from day defense; however, the *line of observation and surveillance* (LOS) is organized by the COP force, or it may be established as a separate element forward of the COP. The LOS maintains contact with the GOP, assists in the passage of the GOP to the rear, and subsequently gains and maintains observation and/or surveillance of approaching enemy forces. The battalion reconnaissance platoon with the ground surveillance section attached (organic in airborne battalions) is particularly well suited for this mission. During daylight operations, the LOS may be combined with the COP; however, to avoid excessive movement, to ease the establishment of LOS positions, and to provide for passage of the GOP to the rear, the LOS may remain in position for day as well as night operations.

5-35. Conduct of the Night Defense

a. Conduct of the Night Defense—Security Area. Radar and night observation aids are used on the LOS and subsequently on the COP to detect approaching enemy forces. Normally, the enemy is first detected by use of radar. Indirect fires are called for and adjusted. If tanks are present on the COP, the enemy is illuminated by searchlight-equipped tanks using the visible light mode, and engaged at ranges of 2,500/3,000 meters. This method provides excellent point target acquisition and long-range engagement. With the exception of image intensifier devices, however, it provides almost continuous signature which degrades the security and deception of the defender against enemy forces that are capable of detecting and reacting to active systems on the battlefield. To maximize security, the defender, by limiting the use of direct active systems, may use artificial illumination, such as illumination projectiles, provided by artillery to achieve adequate target recognition. As the enemy comes within the viewing range of passive viewing devices, artificial illumination is terminated and the attacker is fired upon by weapons with passive night viewing devices. This method provides for retention of maximum security and deception by the defending force. The COP withdraws before becoming engaged in decisive combat.

b. Conduct of the Night Defense—Forward Defense Area.

(1) *Area defense.* The forward elements on the FEBA are alerted to the impending enemy attack and prepared to receive elements of the COP as they withdraw to or through their positions. Detection devices placed in support of the LOS or COP are rapidly emplaced to assist in the detection of the enemy's advance. Normally, indirect illumination is used extensively to expose the enemy as he approaches the FEBA. This permits the rapid adjustment and placement of indirect and direct supporting fires upon the enemy. However, the use of visible illumination during this period of the defense also aids the enemy in his advance toward friendly positions. Accordingly, artificial illumination is used to the minimum extent necessary to place effective fires upon the attacker. As the enemy approaches within range

of the passive systems, visible illumination ceases and passive night vision devices are employed to place accurate fire on the attacking formation. As a general rule, before the enemy initiates his final assault, weapons are not fired until targets are visible. Normally, crew-served weapons will not fire until the FPF is initiated. However, individuals equipped with weapons mounting night vision devices fire at the enemy as he comes within detection range of their devices and the effective range of their respective weapons. Effective fire may be placed on area type targets through the use of range cards, predetermined firing data, and stakes. When the enemy initiates his assault, local commanders initiate FPF in the threatened area. Individual weapons, hand grenades, Claymore mines, and other explosive devices are used to disrupt or repel the enemy's attack.

(2) *Mobile defense.* In the mobile defense, the forward elements must have mobility equal to or greater than that of the attacking enemy force and are usually airmobile or mechanized. Considerations for the conduct of the defense at night are essentially those outlined in (1) above. However, greater use is made of observation and security elements at night because of the wider gaps existing between battalions which could permit enemy infiltration in strength. These groups are equipped with night vision and surveillance devices to assist in detecting enemy movement.

c. Conduct of Night Defense—Reserve Area.

(1) When the battalion is employed as part of the brigade or division reserve in a night attack, it conducts offensive operations as described in chapter 4.

(2) The battalion may adopt the perimeter defense because of the assigned mission or because of the nature of the terrain. In close terrain or in the jungle, companies are assigned narrower frontages and the distance between them is reduced. See paragraph 5-43 for a more complete discussion of perimeter defense.

(3) The battalion reserve conducts assigned missions during night defense in the same manner as in daylight defense; however, the techniques modified. See FM 7-11 for a more complete discussion.

Section VI. OTHER DEFENSIVE OPERATIONS

5-36. General

In addition to the threat of an attacker attempting to overcome defending forces on the FEBA and

penetrations into the areas of adjacent forces that threaten the battalion's position, the commander must be alert to the probability of attack by

armor, air-delivered forces, guerrilla elements, and infiltration through gaps in the defensive positions, and he must be prepared for special defensive situations. Initial planning should include provisions for early detection of these threats and their destruction when they materialize. Highly mobile forces are particularly effective for defense against such attacks.

a. Planning should include provisions for establishment of an observation and patrol capability in rear areas. The responsibility for establishment of this system may be given to the reserve commander along with adequate authority to call upon additional forces to assist in implementing his plan. Initial provisions should include local security for all elements in the rear area, an effective communication system, armed convoy escorts, a barrier plan, and the establishment of observation posts. All organic, attached, supporting, and other units in the area are integrated into the planning.

b. Observation posts are established throughout the battalion area of responsibility. Establishment of the system should be in conjunction with similar plans of adjacent elements and the division system to the rear. These facilities should have communication links to similar elements and the control headquarters. Aerial surveillance and observation should be employed whenever feasible.

c. Patrols should be employed to maintain contact and to develop intelligence information. Reconnaissance patrols are employed in those areas that cannot be effectively screened by observation and during periods of reduced visibility. Once a threat is located, it is reported, maintained under surveillance, and its actions continuously referred to the controlling headquarters. Areas must not be neglected because of their isolation or because they are considered impassable.

5-37. Defense Against Armor

a. Antitank defenses cover likely avenues of armor approach. No area should be overlooked since the enemy may employ armor over other than ideal terrain.

b. Maximum use of natural obstacles, atomic demolition munition craters, and antitank minefields facilitates the destruction of armor by canalizing it into fields of fire for antitank weapons.

c. If armor succeeds in overrunning the forward defense area, antitank weapons located in depth seek to stop further advances. Forces in forward areas may remain in position to prevent the enemy infantry from accompanying the tanks and to destroy enemy tanks.

5-38. Defense Against Airborne and Airmobile Attack

Defense against airborne and airmobile attack includes use of observation posts, patrols, air defense weapons, and a readily available reserve.

a. The enemy landing area is taken under fire to disrupt the operation, inflict casualties, and prevent reorganization. If the enemy force is of sufficient size, consideration should be given to employment of nuclear weapons in the area. When time permits, nuclear effect and target analysis data should be predetermined for the most likely enemy landing areas.

b. A mobile force to destroy or contain the enemy threat should be made available from the battalion, brigade, or division reserve. Desirably, it should contain armor and mechanized infantry. If the mechanized element can initiate an attack prior to the enemy's reorganization and preparation for defense, the problem of destruction is greatly simplified.

c. Enemy airborne and airmobile forces should be engaged as soon as possible with forces readily available to deny the enemy the opportunity to consolidate their positions. The attack will be conducted in a manner similar to the meeting engagement.

5-39. Defense Against Air Attack

a. Air defense measures taken by the battalion include passive protective measures, a warning system, assignment of firing areas, and attack of air targets in accordance with established rules of engagement.

b. Air defense artillery (ADA) units may operate in the battalion area under the control of battalion, brigade, division, or higher headquarters. Detailed plans for use of air defense artillery are prepared by the commander of the air defense unit in coordination with the FSCoord. For discussion of the control of ADA fires (to include rules of engagement), see FM 44-1 and appendix J.

c. Organic non-air defense weapons can partly counter a low-altitude air threat by aggressive use of large volumes of fire from small arms, automatic, and other crew-served weapons to include timed, area fire by field artillery. Units must emphasize the right of self-defense against aircraft attacking their position; however, indiscriminate use of non-air defense weapons against aircraft must be prevented. See FM 44-1 for techniques to

be used by non-air defense weapons engaging hostile aircraft.

5-40. Defense Against Guerrilla Attack

a. Plans for defense against guerrilla activity are part of the battalion overall plan for defense. Units in the rear area normally handle small-scale attacks with their own resources.

b. Although the commander can seldom divert major combat elements for protection within the battalion area, he may have to divert mobile combat elements for possible employment in the event of a large-scale attack in the rear.

c. See FM 31-16, FM 31-21, FM 31-22, and FM 31-23 for doctrine on defense against guerrilla action.

5-41. Defense Against Infiltration

a. Infiltration is a constant threat to a defense, particularly when forces in the forward defense area are dispersed. The enemy may attempt infiltration as a means of disrupting operations and harassing installations in the rear area, or he may attempt massive infiltration as a type of offensive action.

b. Specific measures to aid in controlling infiltration include extensive counterreconnaissance, combat patrols, antipersonnel obstacles, warning devices, and electronic surveillance devices.

c. If the threat of attack by infiltration exists, a mobile combat force may be given the primary mission of combating the infiltrating forces.

d. Small-scale infiltration may be offset by defensive measures similar to those prescribed for defense against guerrilla forces (FM 31-16).

5-42. Reverse Slope Defense

a. A reverse slope defense is organized on that part of a slope which is masked from enemy direct fire and observation by the topographical crest. A successful reverse slope defense is based on denying the topographical crest to the enemy. Once the enemy gains this crest, the defender no longer possesses the advantages offered by the reverse slope; he must launch a counterattack to regain the dominant observation provided by that crest.

b. A battalion will rarely conduct a reverse slope defense along its entire front; however, there may be situations when elements of the battalion may be profitably employed on the reverse

slope. The battalion commander may adopt a reverse slope position for elements of the battalion:

(1) When the forward slope is made untenable by enemy fire.

(2) When the forward slope has been lost or not yet gained.

(3) When the terrain on the reverse slope affords appreciably better fields of fire than are available on the forward slope.

(4) When possession of the forward slope is not essential for observation.

(5) When it is desirable to avoid creating a dangerous salient or reentrant in friendly lines.

(6) To surprise the enemy and to deceive him as to the true location of the battalion defensive positions.

c. The advantages of a reverse slope defense are:

(1) Enemy ground observation of the battle area is masked.

(2) Enemy direct fire weapons cannot effectively fire on the position.

(3) The enemy is deceived as to the strength and location of defensive positions.

(4) Enemy indirect fire becomes less effective because of a lack of observation.

(5) Tactical surprise is gained by the defender.

(6) More freedom of movement is permitted within the battle area because of the enemy's lack of ground observation.

d. The disadvantages of the reverse slope defense are:

(1) Observation of the enemy may be limited and the defender may be unable to effectively cover minefields and obstacles to the front.

(2) The effective range of direct fire weapons of the defender is limited by the topographical crest of the hill.

(3) The enemy will hold the high ground in an attack, and his attack will be downhill while a counterattack must be made uphill.

e. The organization of a reverse slope defense is as follows:

(1) A reverse slope defense is designed to impose maximum casualties on the enemy forward of the position, to deceive him as to the true location of the forward defense area, to obtain maximum effective surprise fires as the enemy crosses the skyline, and to deny the enemy the topographical crest.

(2) The defensive position is organized gen-

erally according to the fundamentals applicable to all defensive positions. An essential feature of a reverse slope position is the requirement for good fields of fire to the crest of the hill. Fires should be placed on the crest and cover the area between the FEBA and the crest. Other factors which affect the organization of the reverse slope position are cover and concealment and the location of natural obstacles.

(3) It is desirable that the forward edge of the position be within effective small arms range of the crest; however, it should be far enough from the crest so that fields of fire will provide the defender time to place well-aimed fire on the enemy before he reaches the defensive position. Defensive positions should permit fires to be delivered on approaches around and over the crest and on the forward slopes of adjacent terrain features.

(4) A reverse slope position is particularly effective when flanking fires from units on adjacent terrain features can be placed on the forward slope.

(5) If the situation will permit, a COP should be established to the front to stop or delay the enemy, disorganize his attack, and deceive him as to where the defensive position is located. When this outpost is withdrawn, it is desirable to maintain observation and security to the front.

(6) Observation and security (O&S) groups will be established on, or just forward of, the topographical crest to give long-range observation over the entire front. These groups, which are usually provided from the reserve unit, may vary in size from a few men to a reinforced squad. The O&S groups should include forward observers and may be reinforced with machineguns, antitank weapons, and tanks. Sufficient groups are employed to provide observation across the entire front and provide security to the main battle position. The number and composition of the O&S groups should be strengthened at night to provide improved security.

(7) A highly desirable location for reserve elements may be on the military crest of the next high ground to the rear (if it is within supporting range of the forward defensive elements) or on the flanks.

f. The conduct of a reverse slope defense is as follows:

(1) The conduct of a reverse slope defense closely parallels that in a forward slope position. The O&S groups provide advance warning of the enemy approach and delay and disorganize him with long range fires. Observation and fires are

maintained over the forward slope as long as possible to disrupt the enemy and prevent him from massing for the assault.

(2) Direct fire weapons located on the FEBA withhold their fires until suitable targets appear. As the enemy crosses the crest, final protective fires are fired.

(3) If the enemy is successful in seizing the crest or if he makes a penetration, a counterattack is launched to destroy him in the penetrated area and to restore the crest. Counterattacks should be executed before enemy reorganization is possible; frequently, the reserve may counterattack from covered positions and hit the enemy on the flank.

5-43. Perimeter Defense

The perimeter defense is a method of defending against an attack from any direction. Frequently, units may be required to conduct defensive operations while separated from other friendly units. This may occur when a unit is on a separate mission, when operating as a strongpoint in mobile defense, when cut off from friendly forces by enemy action, or when terrain restrictions such as woods, jungle, or mountains preclude mutual support between units. Under these circumstances, the isolated unit must deny the enemy the opportunity to attack an open flank. The perimeter defense is similar to an area defense without exposed flanks. Normally, fire support, combat support, and combat service support units are positioned within the perimeter. (See fig. 5-7 and 5-8.)

a. Planning the Perimeter Defense. Considerations in planning the perimeter defense are similar to those in other types of defense. If possible, commanders must provide adequate planning time during daylight hours to insure that the position is properly organized prior to darkness. Commanders consider the following when planning the perimeter defense.

(1) *Security area.* The security area is organized similar to an area defense. Units along the perimeter provide local security. The commander of the force conducting the perimeter defense may establish a combat outpost or rely on the local security detachments to provide early warning. The security forces provide early warning, deny close observation of friendly positions, and within their capability delay, deceive, and disorganize the enemy. The security forces are positioned forward of the perimeter on terrain that provides good observation, prohibits enemy direct fire into the perimeter, and is within supporting range of supporting indirect fire weapons. Forces employed in

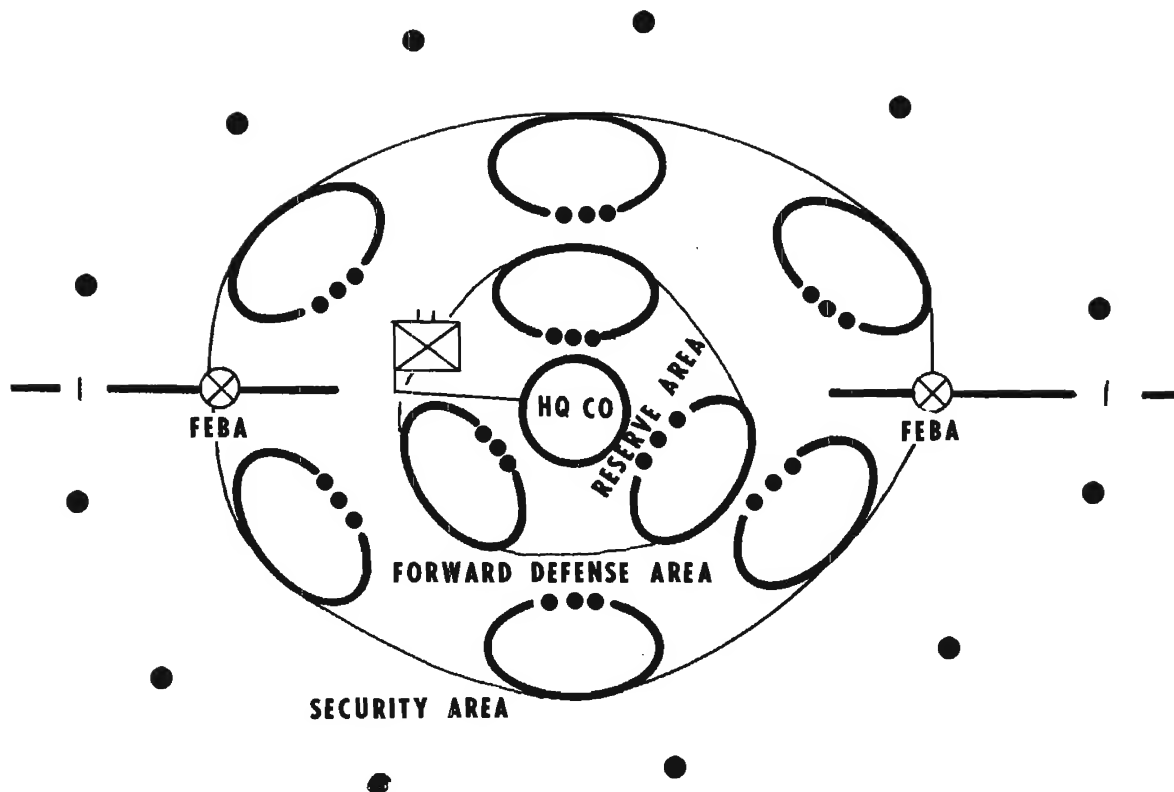


Figure 5-7. Infantry battalion in perimeter defense with two companies in forward defense area.

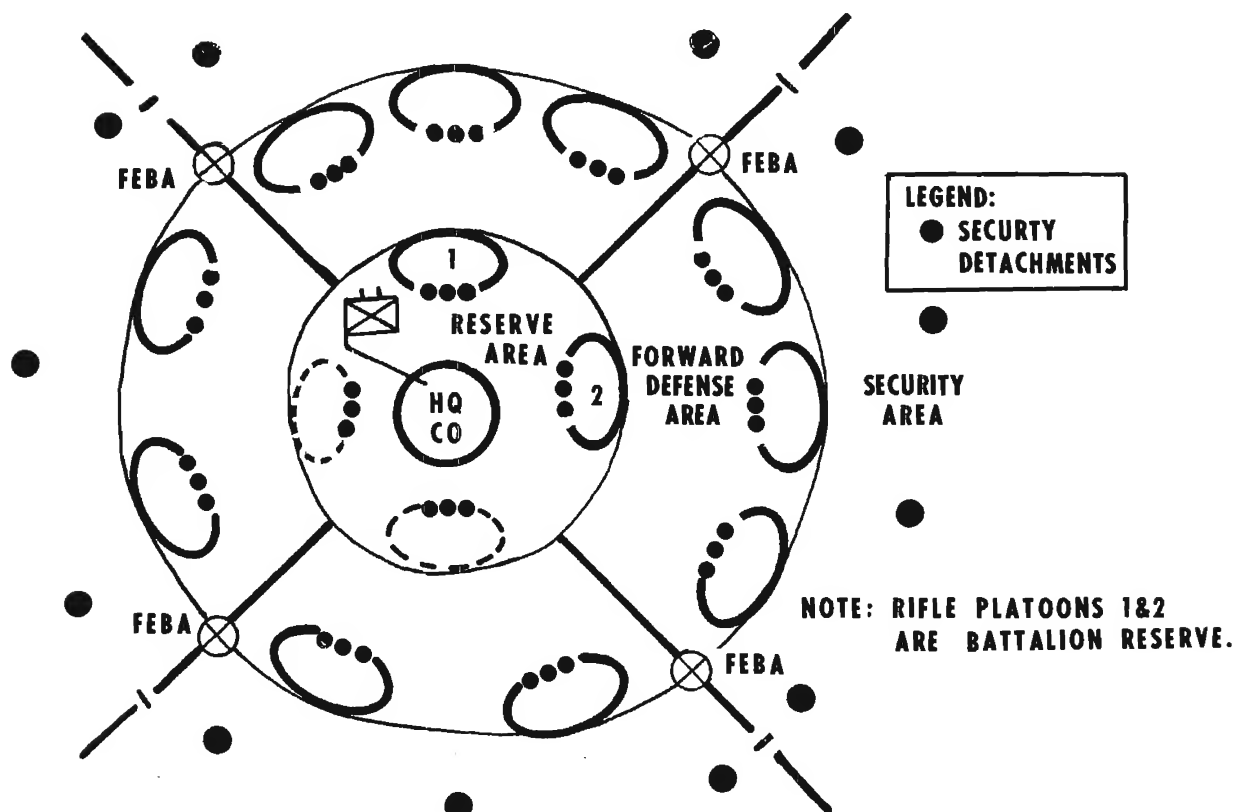


Figure 5-8. Reinforced infantry battalion in perimeter defense with four companies in forward defense area.

the security are located to cover avenues of approach into the perimeter. Gaps between security elements are covered by fires and all types of surveillance, to include patrols, radar, observation posts, and aerial surveillance. In a jungle environment where observation and mobility are restricted, the security echelon is vulnerable to decisive engagement and destruction since the difficulty in acquiring targets and adjusting fires makes indirect fire support for the security echelon less effective. These limitations can be overcome by deviating from the standard position type employment of forces by employing patrols and listening/observation posts, by establishing ambush sites, and by using carefully planned interdiction fires.

(2) *Forward defense area.* In the perimeter defense, the forward defense forces are assigned the responsibility to organize and defend specific portions of the FEBA. The frontage assigned to a unit along the FEBA will depend largely on the situation, terrain, and troops available. As gaps are not acceptable, particularly in close terrain, the frontages assigned to units and the depth of the perimeter is normally greatly reduced. Because of the lack of depth and maneuver space, the commander of the perimeter forces cannot willingly accept a penetration and he must place the preponderance of his forces and weapons on or just behind the perimeter. Companies on the perimeter must be deployed to provide depth and thereby lessen the chance for penetration.

(3) *Reserve area.* Unit reserves, command and control elements, fire support, combat support, and combat service support units are located in the rear (reserve) area. The reserve force may consist of a designated reserve unit, a force designated from subordinate units, or a unit organized from headquarters and support personnel and given specific reserve contingency missions. It is highly desirable to maintain a mobile reserve force to facilitate rapid reaction in any direction. Because of the nature of the terrain and limited depth of the position, it may be necessary to position a counterattack force outside the perimeter, provided the unit has an airmobile capability. This is an effective way to minimize the forces within the perimeter and maintain the capability to react to enemy actions and reestablish the FEBA. In close terrain, covered positions for the reserve echelon must be provided to insure an ability to function while receiving small-arms fire placed on the FEBA.

(4) *Fire support.* The employment of organic and attached weapons and surveillance devices is generally as prescribed for the area defense.

(a) Antitank weapons may be employed on the FEBA to engage point targets and to augment organic weapons.

(b) Attached tanks may be employed as part of the reserve force, or placed in primary firing positions on the FEBA. If held in reserve, firing positions and routes to these positions should be prepared in advance. Supplementary positions should be prepared to cover all avenues of approach and the tanks should be prepared for rapid employment to support counterattack plans.

(c) Employment of indirect fire weapons is planned to permit engaging the enemy as far forward of the FEBA as possible, utilizing a 360° capability. Available fires from outside the perimeter should be coordinated and integrated into the overall defense plan. In close terrain, with limited observation, all personnel of the unit should be familiar with the unit fire plan and the procedures for directing these fires.

(5) *Administration and logistics.* In the perimeter defense, resupply is frequently accomplished by aerial delivery. Selection of drop and landing zones or the capability to construct them in a short period of time is a critical consideration in organizing the defensive position. These zones should provide the maximum protection from enemy observation and fire. Since aerial supply is time-consuming and dependent on the weather and often restricted by enemy fires, emphasis must be placed on supply economy and organization of the position to reduce the possibility of destruction of supplies by enemy fires. Use of available fire support from outside the perimeter will conserve the ammunition within the perimeter for use during periods when fire support from outside the perimeter is not available.

(6) *Command and control.* As in other types of operations, units conducting a perimeter defense maintain communications with higher headquarters and supporting and subordinate units. Alternate communications facilities should be provided to the maximum extent possible. An effective communications network within the perimeter enhances the commander's ability to influence the action and reduces unnecessary movement.

b. Conduct of the Perimeter Defense. Conduct of a perimeter defense is the same as the area defense with the following special considerations:

(1) *Security area.* Security detachments are established to cover all avenues of approach. These detachments may vary in strength from a few men to a reinforced squad appropriately equipped with surveillance devices.

(2) *Forward defense area.* The forward defense echelon should concentrate on achieving a high degree of mutual support with units maintaining fire discipline to preclude compromising the exact location of the FEBA. Any major penetration of the FEBA is considered dangerous because of the frequent isolation of the unit and difficulty in conducting counterattacks.

(3) *Counterattack.* If the FEBA is penetrated, the reserve echelon may be employed to block or to counterattack to reduce the penetration to restore the FEBA. After committing the reserve force, a provisional reserve must be reconstituted to enable the commander to meet other possible threats. It may be necessary to employ a force not engaged in another sector of the FEBA as a reaction force; however, if a nonengaged force is used for this purpose, sufficient combat power must be retained in the vacated sector to hold that portion of the FEBA. The employment of an airmobile reserve from a position outside the perimeter requires close coordination with the forces within the perimeter. When employing a counterattack force from outside the perimeter, necessary control measures include a limit of advance, a fire coordination line, and a zone of action to enhance the success of the mission.

5-44. Strongpoint Defense

When an infantry battalion has the mission of establishing a strongpoint, it will normally organize this position initially as an area defense and withdraw to prepared alternate positions under enemy pressure. Special emphasis will be placed on all-round security and the ability to defend the position from the rear and flanks. Forces occupying a strongpoint may defend forward of the key terrain and then employ fire and maneuver to retain control of the designated terrain to accomplish their mission (fig 5-9).

5-45. Special Defensive Operations

Defensive operations may be conducted under conditions that require special training and equipment as well as modification of the tactics and techniques employed. When specially trained and equipped, all Army forces are capable of special operations, which include:

a. Defense in Fortified Areas. See chapter 7 and FM 31-50 for details on combat in fortified areas.

b. Defense in Built-Up Areas. See chapter 7 and FM 31-50 for details on combat in built-up areas.

c. Jungle Operations. See chapter 7 and FM

31-35 for details on combat in a jungle environment.

d. Desert Operations. See chapter 7 and FM 31-25 for details on combat in a desert environment.

e. Mountain Operations. See chapter 7 and FM 31-72 for details on combat in mountains.

f. Deep Snow and Extreme Cold Operations. See chapter 7 and FM 31-70 and FM 31-71 for details on combat in deep snow and extremely cold environment.

5-46. Rear Area Protection

a. General.

(1) Rear area protection is the term used to describe those actions taken by rear area forces to preserve themselves or to minimize the effects of hostile action and natural or manmade disasters on accomplishment of their missions. Usually these forces are combat service support or combat support elements. The senior commander in the area is responsible for coordination and control of such actions. Rear area protection is divided functionally into rear area security and area damage control.

(2) Planning, coordinating, and supervising tactical security for the battalion area is the staff responsibility of the S3. Within the overall tactical security plan of the battalion, the S4 is responsible for planning and implementing security measures in the trains area.

b. Rear Area Security.

(1) The S4 discharges his responsibility for rear area security by:

(a) Locating logistical facilities where they can provide mutual support.

(b) Establishing a security plan for the trains area.

(c) Enforcing camouflage and light discipline.

(d) Employing obstacles.

(e) Using armed convoys.

(f) Coordinating the security plan with reserve elements located in proximity to the trains areas.

(2) When the threat of enemy action is of a magnitude that renders the security capability of logistical support units ineffective, combat units may be assigned specific security missions to insure continuation of logistical support operations.

c. Area Damage Control.

(1) Actions taken by the battalion to avoid or

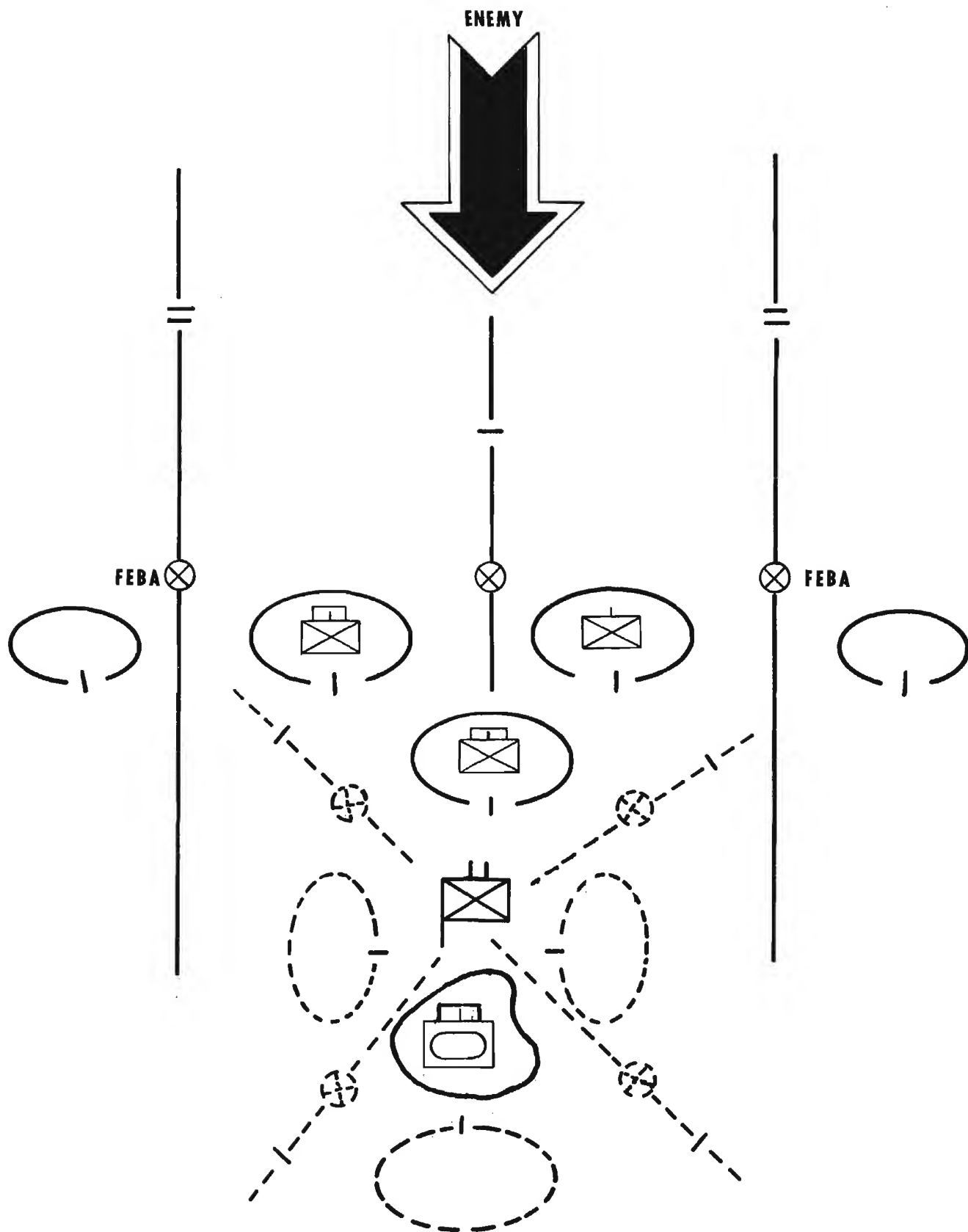


Figure 5-9. Battalion task force conducting strongpoint defense.

minimize the effects of enemy mass-destruction attacks or natural disasters include:

(a) Dispersion of combat service support units consistent with the accomplishment of the mission.

(b) Locating logistical facilities to capitalize on the protective characteristics of the terrain, and subsurface, manmade structures.

(c) Establishing an adequate warning or alert system.

(d) Enforcing light, noise, and camouflage discipline.

(e) Establishing unit area damage control SOP.

(f) Designating and training unit control and assessment teams (CAT).

(2) Measures taken to restore control include:

(a) Dispatching CAT(s) to the site of the attack or disaster.

(b) Damage assessment of both personnel and materiel.

(c) Providing medical evacuation for personnel of the affected unit(s).

(d) Performing radiological monitoring and survey when mass destruction is the result of a nuclear weapon.

(e) Restoration of control to include communications in the affected unit or, if appropriate, assumption of control by the area damage control team.

(3) A CAT is normally formed at battalion

level from the resources in the headquarters and headquarters company. Its functions include:

(a) Establishing a control and assessment command post.

(b) Determining and reporting effectiveness of units.

(c) Assuming control of units in affected areas.

(d) Releasing combat effective units to tactical commanders.

(e) Requesting required combat service support.

(f) Directing and controlling the operations of rescue and decontamination squads.

(4) The battalion usually forms light rescue and decontamination squads from organic units. The S4 normally directs the rescue and decontamination squads. The battalion may be ordered to assist adjacent battalions when the magnitude of destruction is beyond the scope of teams within the affected battalion.

(5) FM 54-3, FM 100-5, and FM 100-10 contain details on area damage control operations.

5-47. Defense Against Nuclear, Biological, or Chemical Attack

Provisions for protecting individuals and units from nuclear, biological, and chemical attack, including a warning system, nuclear, biological, and chemical teams, and shelters, normally are included in the unit SOP. Special measures are incorporated in the defense plan as required (FM 21-40 and FM 61-100).

CHAPTER 6 RETROGRADE

(NATO STANAG/CENTO STANAG/SEATO SEASTAG 2082; ABCA SOLOG 49R)

Section I. INTRODUCTION

6-1. General

A retrograde operation is any movement of a command to the rear, to the flanks, or away from the enemy. It may be forced by enemy action or it may be voluntary as part of an overall scheme of maneuver. In either event, such action must be approved by the next higher commander. A force executes a retrograde operation voluntarily only when a distinct advantage is to be gained. Retrograde operations must be well planned and executed to prevent disaster. Retrograde operations are characterized by centralized planning and decentralized execution, and they are associated with relinquishing terrain to the enemy's control. Unlike the defense, the commander normally avoids decisive engagement.

a. An inherent purpose in all retrograde operations is to inflict as much damage on enemy forces as the situation permits. Therefore, retrograde operations are conducted as a series of defensive, offensive, withdrawal, and delaying operations. Every opportunity to inflict damage on the enemy force is exploited to the maximum. When the enemy masses, he is attacked by fires; when he advances too quickly and extends himself, he is attacked and destroyed by maneuver elements. Ideally, the attacker's combat effectiveness is degraded until the opposing forces approach parity. The defender then regains the initiative with offensive action by his reserve units.

b. Retrograde operations conducted in a nuclear environment necessitate preparation of detailed plans for the tactical employment of nuclear weapons to include selective use of atomic demolition munitions. Easily identifiable terrain positions may have to be avoided in consideration of the enemy nuclear capability. Close contact with the enemy is maintained as long as possible. Emphasis is on mobile defensive techniques to deny relatively immobile targets to the enemy.

6-2. Purpose and Types of Retrograde Operations

a. *Purpose.* The purpose of a retrograde operation is to preserve the integrity of a force until the offense may be resumed. Additionally, retrograde movements are conducted for one or more of the following reasons:

- (1) To harass, exhaust, and inflict punishment on the enemy.
- (2) To draw the enemy into an unfavorable situation.
- (3) To permit the use of all or a portion of a command elsewhere.
- (4) To avoid combat under undesirable conditions.
- (5) To gain time without fighting a decisive engagement.
- (6) To disengage from combat.
- (7) To place the forces involved in the desired position in relation to other friendly forces.
- (8) To shorten lines of communication.

b. *Types.* Retrograde operations are classified by type as withdrawal, delaying action, and retirement.

(1) *Withdrawal* is an operation in which a deployed force disengages from an enemy force.

(2) *Delaying action* is an operation in which a force under enemy pressure trades space for time while inflicting maximum delay and punishment on the enemy without becoming decisively engaged in combat.

(3) *Retirement* is an operation in which a force avoids combat under existing conditions by conducting an orderly withdrawal according to its own plan and without pressure by enemy forces.

(4) *Combination of types* may be necessary. For example, a retirement may be preceded by a withdrawal. The retirement may be covered by a unit executing a delaying action.

Section II. FUNDAMENTALS OF RETROGRADE

6-3. Basic Considerations

a. Mobility. Forces in retrograde should possess mobility superior to (or at least equal to) that of the enemy. If mobility resources are not adequate for the entire force, the portion having mobility superior or equal to that of the enemy is used to hold and harass the enemy. Elements can withdraw from an enemy possessing a greater means of mobility by employing such measures as covering forces, using nuclear as well as nonnuclear fires, maintaining control of available routes, establishing new and reinforcing existing obstacles, and providing deception. These measures offset the enemy's advantage in mobility.

b. Proper Use of Terrain. Terrain has a definite influence on all retrograde operations. Good observation and fields of fire are desirable so the enemy can be engaged at long ranges. Natural and man-made obstacles including barrier systems, minefields, and demolitions (in combination with the effective use of chemical agents and atomic demolition munitions) are exploited to protect exposed flanks and impede enemy movement. Concealment and cover are sought when selecting assembly areas and routes of movement. Road nets are exploited, especially by armor and mounted forces, to expedite movement and to facilitate control of the operation. Road nets are denied to the enemy.

c. Maintain Freedom of Action. Close combat is avoided unless required to accomplish the mission. Freedom of maneuver is essential to rapidly exploit any situation unfavorable to the enemy, to shift forces to meet enemy attacks, to secure the flanks and rear, and to take maximum advantage of terrain. A decisive engagement is avoided except at the option of the withdrawing force.

d. Detailed Centralized Planning—Decentralized Execution. Retrograde operations are characterized by detailed centralized planning and by decentralized execution. Communication and control are difficult in retrograde operations. When communications with the parent unit are lost, subordinate unit commanders act independently until centralized control is regained.

e. Nuclear Weapons. The possession as well as the use of nuclear weapons by retrograde forces effects a degree of resistance in itself, for it forces caution on the enemy by discouraging his massing. If the enemy masses sufficient strength to force a passage at major obstacles (natural or artificial), he becomes vulnerable to a nuclear attack which particularly (when exploited by limited offensive

action) inflicts greater damage on the enemy force.

f. Passive Protection. The nature of retrograde operations (extended frontages, infiltration tactics, movement under conditions of reduced visibility, linear formations, rapidly changing situations) provides a degree of passive protection from nuclear weapons during the operation. The probability of enemy interdiction of road nets along routes of withdrawal demands planning for alternate routes.

g. Routes of Withdrawal. For effective retrograde operations, control of open routes of withdrawal is essential. A retrograde operation can rarely be conducted without the civil population becoming involved in the operation. Control and evacuation of civilians must be considered in all plans for such a movement to avoid traffic disorder and congestion which might restrict the freedom of movement of the withdrawing force. Route priorities are planned for all units to provide an orderly shifting of forces with due consideration for their mission and capabilities.

h. Priority Requirements. An aggressive enemy can be expected to follow any retrograde movement relentlessly and to strike withdrawing columns from all directions. For this reason, mobile security forces, continuous reconnaissance, rapid movements, and air and antitank defense become priority requirements.

i. Army Aviation. Army aircraft may be effectively used to move units engaged in a retrograde operation. Commanders can achieve better control and obtain more timely information by supervising the operation from Army aircraft. When forces are heavily engaged, attack helicopters may be utilized to assist them in disengaging and to cover their withdrawal. Aerial observers may conduct reconnaissance to determine conditions of roads and bridges to the rear and locate bypasses and alternate routes in case bridges are destroyed. Aircraft may be used to move supplies and equipment and to evacuate patients.

j. Morale. A retrograde movement is a planned operation with a positive purpose. This fact must be emphasized to the troops engaged in the operation. Rumors are countered by keeping troops informed to maintain morale and prevent disorganization of the unit. Forceful leadership, strict discipline, control, and prior planning are necessary in order that the intent of the operation is fully recognized and executed. Command groups remain well forward.

k. *CBR*. In retrograde operations, flame weapons can be effectively used against mass attacks which threaten to overrun positions. Persistent chemical agents and pre-positioned atomic demolition munitions are effective for contamina-

tion of terrain after a withdrawal by friendly forces. The enemy may avoid the contaminated area and be forced into unfavorable terrain or the enemy may cross the contaminated area and accept casualties.

Section III. PLANNING THE RETROGRADE

6-4. General

Planning of a retrograde operation is centralized and as detailed as time and resources will permit. Sequence of planning is similar to that of a defensive operation. The commander's decision and concept for retrograde operations contain essentially the same elements as for the defense; in addition, they should include the organization of the initial position, the manner of withdrawal, security during movement and time phasing, and occupation of a subsequent position(s) to the rear. In the development or refinement of plans for a retrograde operation, the essential elements must include provision for positive and effective coordination, complete control of routes of movement, control of civilian personnel, responsiveness of all resources, and means to permit flexibility in the operation.

a. The nature of a retrograde operation places primary reliance on radio communication. The use of wire should be planned to compensate for possible enemy electronic countermeasures and as a counterintelligence measure. As a minimum, planned wire systems should include trunks along routes of movement of major subordinate command and control elements and integrated systems on all delaying and covering positions. The plan of operation should be made known to the lowest subordinate leaders, consistent with security, as a precaution in the event of loss of contact. Concurrent with planning, liaison should be established with adjacent units for mutual support and flank security, and to provide unity of effort. Reserves are employed to prevent envelopment of withdrawing forces.

b. Control of routes of movement is normally exercised by brigade or higher headquarters. Frequently, however, military police are made available to assist in the operation. Under this condition, the brigade establishes a route control system to assist the battalions in their rearward movement.

c. Appropriate arrangements are made for reconnaissance by representatives from subordinate units. Elements expected to perform supporting tasks in the operation are made self-sufficient con-

sistent with the mission to be executed. Plans for providing support to operational elements of the command are thoroughly integrated into the overall plan.

d. In development of the plan for the operation, careful consideration is given to maximum flexibility. Essentially, the mission and contributing tasks are fixed. Alternate plans are developed to meet anticipated changes that may affect the principal plan, and all aspects are analyzed so that maximum freedom of action is given subordinate commanders under contingency situations.

e. During a retrograde movement, elements may be ordered to let enemy forces bypass them to enable the friendly elements to operate in the role of stay-behind forces. Operation of such forces requires detailed planning, carefully delineated missions, and effective control. Requirements for long-range communication equipment and for extrication or extraction normally necessitate support from higher echelons. Appropriate missions for a stay-behind force include ambushes, calling for and adjusting fires, executing demolitions, locating nuclear targets, reporting enemy information, and conducting raids to destroy key installations such as enemy command or communication facilities, supply installations, and nuclear delivery means. Planning should include contingency missions for units that may be forced into the role of stay-behind forces. Plans must also include measures for supporting fires, resupply coordination with friendly guerrillas, and recovery of stay-behind forces.

f. Security and deception may be obtained in retrograde operations through active and passive measures, including—

(1) Requiring radio silence for displacing units and maintaining a normal radio pattern in the forward defense area during a withdrawal without pressure.

(2) Providing withdrawing units with front, flank, and rear security against ground and air attack.

(3) Maintaining normal supporting fires, patrolling, and radar employment to deceive the enemy during a withdrawal without pressure.

(4) Displacing during periods of reduced visibility.

(5) Using stealth to withdraw on a wide front to reduce vulnerability to nuclear attack.

(6) Insuring noise (and light) discipline of withdrawing units.

(7) Restricting movement of units to the rear prior to the withdrawal.

g. Demolitions and obstacles are employed in order to delay and disorganize the enemy advance. Use of minefields, abatis, and craters, and destruction of bridges and tunnels may restrict enemy maneuver and thereby facilitate withdrawal of friendly elements. Obstacles may be created by nuclear fires or conventional demolitions. Nuclear weapons will normally be assigned or allocated to the battalion by higher echelons.

(1) In planning the use of demolitions, guidance must be provided on the time or conditions under which demolitions will be fired. A demolition firing party will be designated and, when appropriate, guards will be provided to prevent premature firing or seizure of emplaced demolitions by enemy infiltrators. Care must be taken that demolitions employed will not hamper anticipated future friendly operations in the area.

(2) After withdrawal of all except security forces across a river or other water obstacle, those river-crossing means not required are normally removed or destroyed. Boats or rafts on the far bank (enemy side) are removed or destroyed; fords are mined or made impassable with obstacles; and sufficient spans of bridges are demolished to deny the enemy use of the remaining bridge structure. Responsibility is normally delegated to the battalion commander for destruction of bridges within his sector. However, certain restrictions on their destruction may be imposed by brigade or higher commanders.

(a) An engineer officer or senior NCO will normally be appointed as a firing party commander. Infantry units will provide an adequate guard to protect the demolition charge and the firing party. The commander of this guard party will normally also have direct control of the firing party. The demolition firing party commander will fire the demolition at a prescribed time or when ordered by the demolition guard commander. After the demolition is fired, results are reported to the commander ordering the firing. In the event of a misfire or only partially successful demolition, the infantry guard will provide protection to the firing party until it has completed the demolition.

(b) The demolition guard commander will order the firing of the demolition only upon the

order of the appropriate authority. However, if the enemy is in the act of capturing the bridge, the demolition guard commander will order firing of the demolition on his own initiative. Plans for destruction of bridges must include measures and precautions to insure that bridges are not blown prematurely or captured intact by the enemy. A list of units that are to use the bridge is furnished the demolition guard commander. Commanders of withdrawing units notify the guard commander when their units have cleared.

h. Paragraphs 6-6 through 6-18 discuss planning for each particular type of retrograde operation in detail.

i. For additional guidance concerning combat service support, particularly for positioning of supplies, vulnerability of trains, maintenance and recovery, and management of class IV supplies in a tank-heavy or infantry-heavy mechanized infantry battalion task force, see FM 17-1.

6-5. Control Measures

a. Designation of control measures must include the consideration that unnecessary restrictions inhibit initiative, flexibility, and improvisation by subordinates. Prescribed control measures should be limited to those essential to security, direct phasing of the operation, and maintenance of integrity of the command.

b. Control measures prescribed for a withdrawal are based on the situations under which the withdrawal is expected to occur. When the withdrawal is conducted during periods of reduced visibility with a probability of enemy pressure, highly restrictive control measures are essential. If conducted during daylight under enemy pressure, control measures are generally limited to those prescribed for a delaying action.

c. A delaying action will include designated delaying positions, sectors, and routes of movement if road arteries are limited and priority for their use is required. The brigade may confine control measures to sectors and phase lines with provisions for retention of positions for a specified period of time or until certain situations occur. Under these circumstances, the battalion may subdivide the sectors for control of subordinate units and establish delaying positions or phase lines.

d. A retirement does not visualize organized enemy opposition during its conduct. Control measures are normally limited to routes of movement, phase lines, and traffic control posts.

Section IV. WITHDRAWAL

6-6. General

A withdrawal is an operation in which all or part of a deployed force disengages from the enemy. Certain elements remain in contact with the enemy to prevent his unrestricted followup of the main force and to inflict maximum damage on his formations by fires or appropriate maneuver action if the enemy initiates offensive action during the withdrawal. In a division withdrawal, the brigades with their attached infantry battalions may control all or part of the withdrawing elements or provide a covering force as security for the forces engaged in the withdrawal. These operations are typed as withdrawals under enemy pressure and withdrawals not under enemy pressure. The techniques of implementation and execution are based on the type of withdrawal to be conducted.

a. A withdrawal not under enemy pressure (fig. 6-1) requires the use of effective countersurveillance and primarily depends on speed of execution and deception. It may be accomplished by stealth or in conjunction with nuclear attack or other operations to divert the enemy's attention. Plans should include provisions for the eventuality of detection and interference with the operation. Successful withdrawals of this type normally will be limited to darkness, or other periods of poor visibility, or difficult terrain when friendly air superiority is enjoyed. Control will be complicated by poor visibility and difficult terrain.

b. A withdrawal under enemy pressure (fig. 6-2) depends on maneuver, firepower, and control. All available fires should be used in the withdrawal of closely engaged units. Forward elements move to the rear by aggressively employing small-unit delaying tactics. The commander must determine the order of withdrawal when simultaneous withdrawal of all units is not possible. Withdrawing the most heavily engaged unit first may subject the battalion to encirclement and possible defeat or destruction. Withdrawing the least engaged unit first may result in the loss of the most heavily engaged unit. The decision must be based on a determination of which plan preserves the integrity of the battalion and best contributes to the mission; however, the least engaged units are normally withdrawn first.

c. In withdrawals, reserves are normally positioned well forward to assist with fire or ground attack. When withdrawing under pressure, the reserve may launch spoiling attacks to disorganize, disrupt, and delay the enemy attack. Reserves may

also be used to cover the withdrawal or to extricate encircled or heavily engaged forces.

d. The battalion normally will be assigned a sector for withdrawal. In a withdrawal under pressure, boundaries of the sectors extend to the rear of the covering force, if provided, with provisions made for extending the boundaries if the covering force fails in its mission. If there is no covering force, the boundaries extend to the next rearward position. In a withdrawal without pressure, the detachments left in contact (DLIC) assume responsibility for the sector and battalion boundaries and, on order, boundaries from the initial position to the reserve position. The brigade may assign route priorities if routes for withdrawal are limited. Otherwise the battalion will select its own routes within the section assigned by brigade. The battalion assigns priority for use of routes to subordinate units. Desirably, there should be at least one route available for each withdrawing company.

6-7. Planning

Planning for a withdrawal involves close attention to detail, thorough briefing, and reconnaissance by all subordinate elements. Consistent with security requirements, commanders should provide for their subordinate leaders to reconnoiter the area in which they are expected to operate. Elements expected to operate on independent missions are permitted to conduct reconnaissance in any case. Planning and directives for the operation include the following essential elements:

a. Time and priority of withdrawal of subordinate units.

b. Sectors, phase lines, routes of withdrawal, traffic control, and other control measures to be employed.

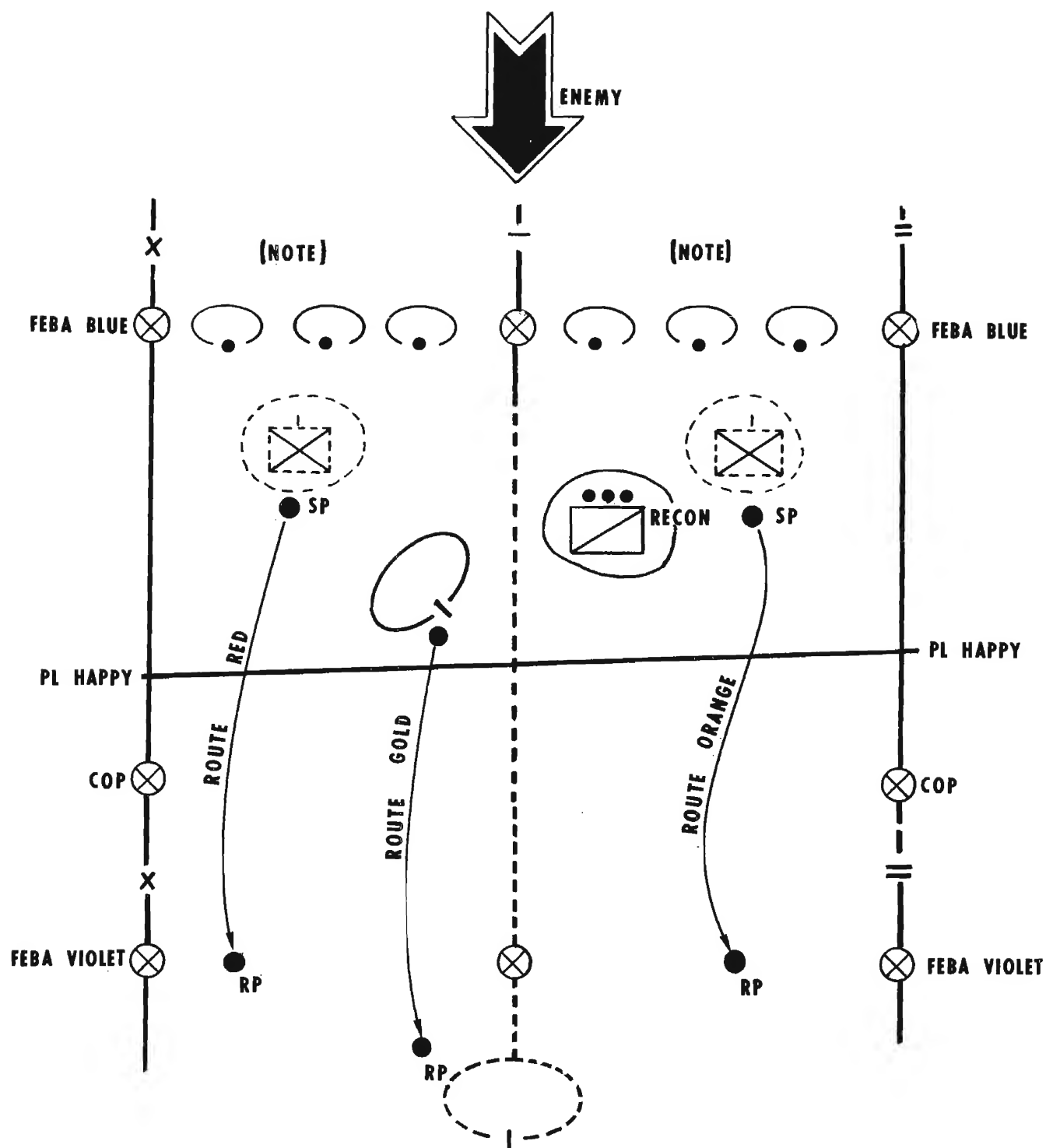
c. Provision for security and covering forces and the locations of each.

d. Provisions to prevent compromise of the intention to withdraw.

e. Organization for combat and time-phasing of attachments and support.

f. Provisions for disposal or destruction of supplies and equipment (except medical) in a manner and a time which will not compromise the plan of withdrawal.

g. Provisions for combat support and combat service support during the operation.



NOTE: DLIC ALONG THE FEBA HAS RECON PLATOON AS DLIC RESERVE.

Figure 6-1. Battalion withdrawal not under enemy pressure.

h. Provisions for locating, treating, and evacuating all patients prior to the withdrawal.

i. Location of position to be occupied following the withdrawal and disposition of forces.

j. Provisions for breaking contact in a withdrawal conducted under enemy pressure and action to be initiated if the enemy attacks following the withdrawal.

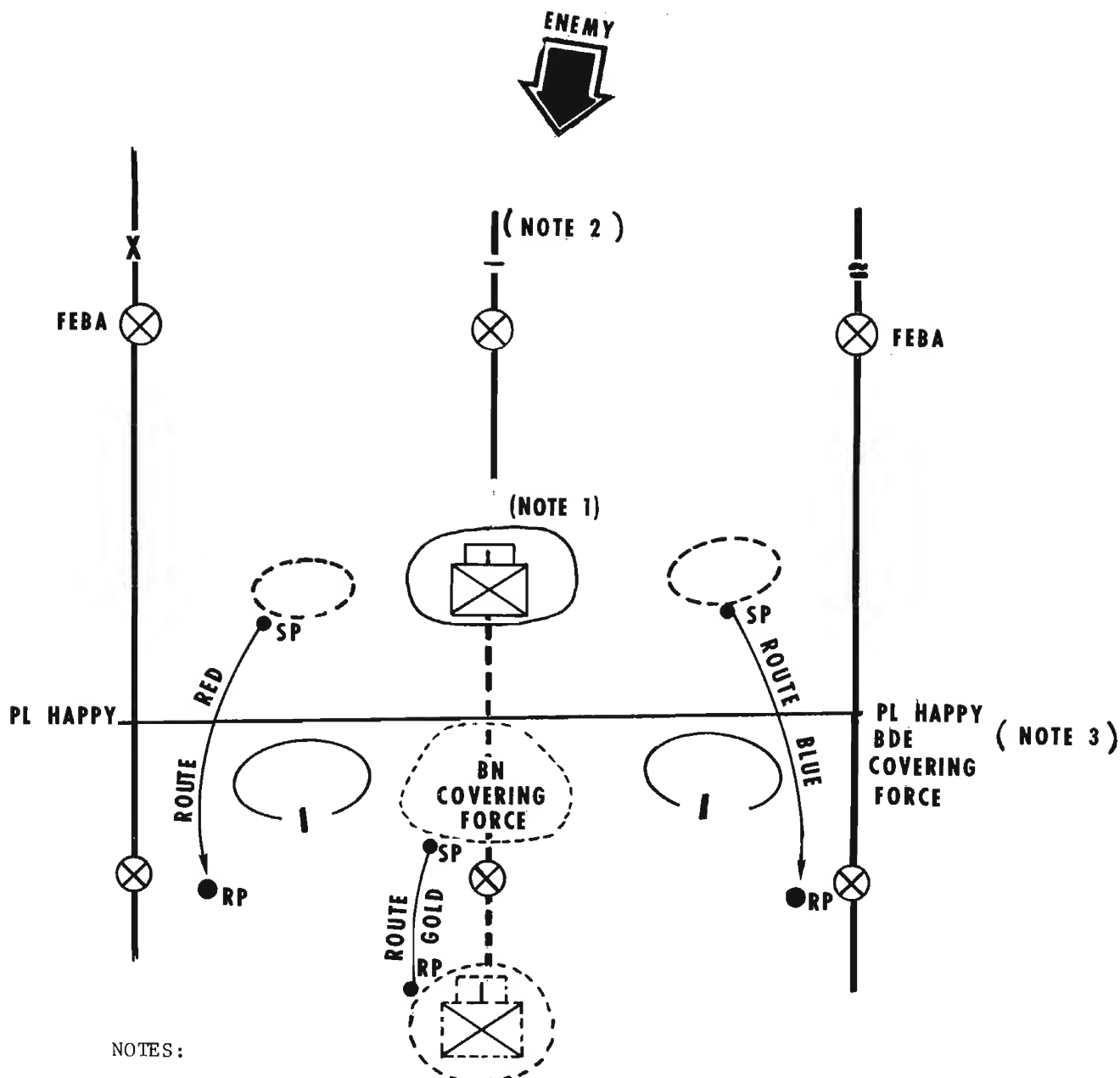


Figure 6-2. Battalion withdrawal under enemy pressure (through brigade covering force).

lowing a withdrawal conducted when not under enemy pressure.

k. Subsequent missions.

6-8. Withdrawal Not Under Enemy Pressure

a. General. The battalion commander prescribes the strength and disposition of forces to be left in

contact upon withdrawal of the main force. In addition, he designates a command element to control the operation and carry on such communication traffic as will approximate normal operations. Under certain circumstances, such as anticipated enemy pressure, higher headquarters may establish a covering position utilizing the brigade reserve or other forces (FM 61-100).

(1) As soon as a concept of operation is reasonably firm, the commander issues a sufficiently detailed warning order to permit reconnaissance and planning by subordinate commanders during daylight hours.

(2) To insure that the withdrawal is accomplished as expeditiously as practical, elements not essential to the operation are designated for infiltration to the rear to prevent road congestion when the main force withdraws.

(3) Withdrawal plans normally provide for the simultaneous withdrawal of all forward committed units. Those elements designated as DLIC become, thereafter, a separate force under battalion control. In designating forces to be left in contact, every effort should be made to provide mobility superior to that of the enemy.

(4) To insure adequate control of the operation and provide for orderly movement, elements located in the areas of major subordinate units are attached to these units by higher headquarters or battalion prior to initiation of the withdrawal.

(5) Withdrawal of DLIC should be initiated in sufficient time to permit their withdrawal without pressure.

(6) When higher headquarters provides a covering force, the reserve is withdrawn prior to movement of the forward elements. Under this condition, the battalion reserve starts organization and preparation of positions to be manned by the battalion after withdrawal. When the main elements have passed through the covering force, it assumes the mission of, and conducts the appropriate actions for, a COP. Normally, a portion of the brigade reserve is left in position to represent the reserve communication system, and to simulate normal activities of a full brigade reserve.

(7) At battalion, and particularly at lower level, assembly areas may be designated to insure control of forces prior to forming a march column. The assembly area is not normally used at brigade level.

(8) If the withdrawal is discovered, battalion elements conduct the action as a withdrawal under enemy pressure. Planning should provide for such a contingency, and all subordinate leaders must know the alternate plans.

(9) The sequence of a withdrawal not under pressure is shown in figure 6-3.

b. Concept. If the battalion is on the FEBA prior to a withdrawal not under pressure, DLIC are designated to protect the initial movement of the main body to the rear (fig. 6-1). The brigade normally assumes control of the DLIC of each forward battalion to permit the battalion to move directly to the next rearward position. As it moves farther to the rear, the battalion main body will usually come under protection of a covering force (brigade reserve or division GOP) through which it withdraws.

(1) *Detachments left in contact.*

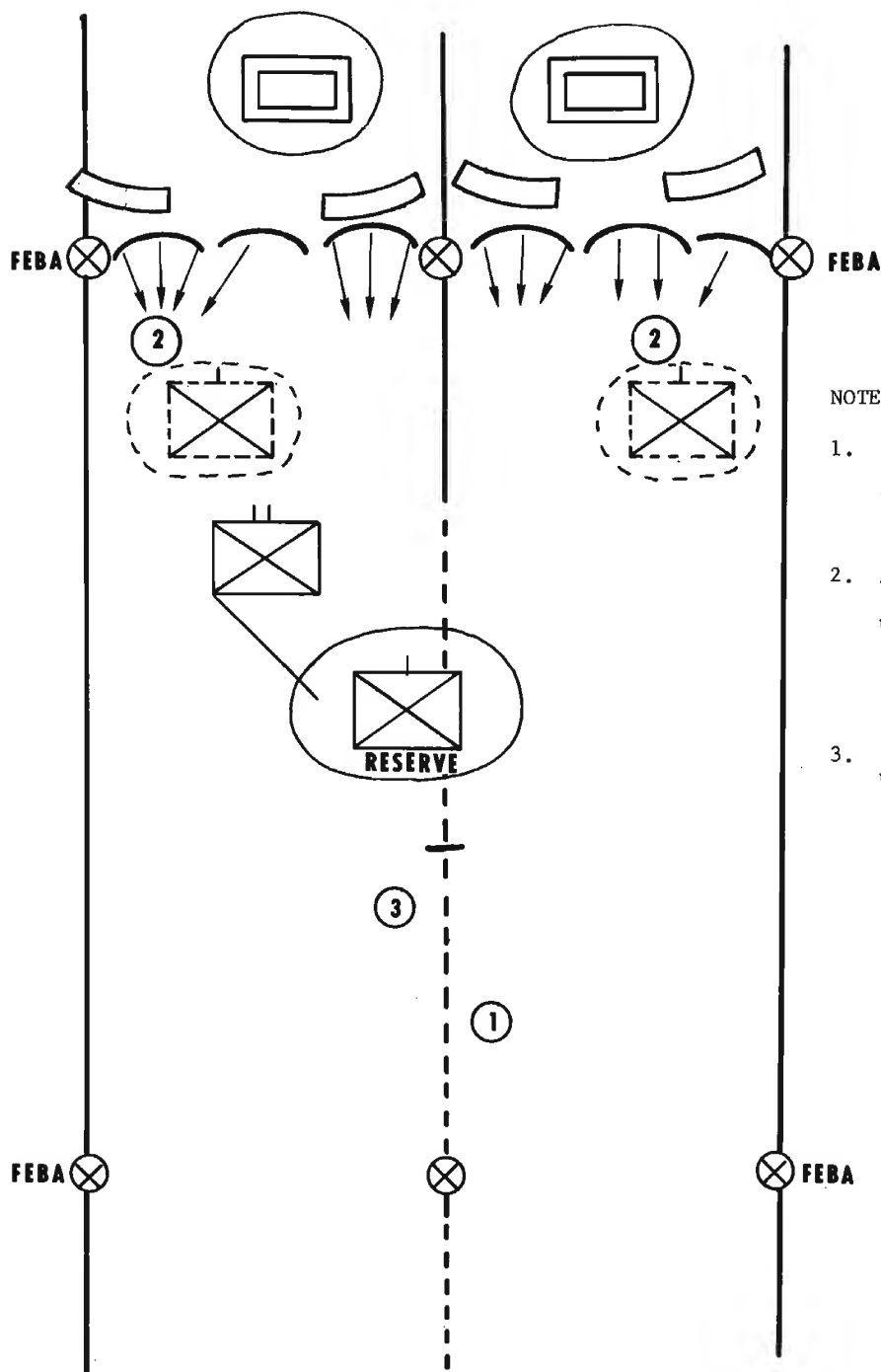
(a) The DLIC have the mission of simulating normal activities of the withdrawing force and protecting the withdrawal of the main body within their capabilities. The detachments normally have a limited capability for resistance and must depend primarily upon deception to accomplish their mission.

(b) The battalion commander, acting under brigade orders, coordinates the employment of DLIC to include provisions for necessary artillery support. Brigade DLIC commander specifies the time of their withdrawal to insure coordination of all brigade elements by directing the detachments to withdraw on order, at a prescribed hour, or upon the occurrence of a specified event. Brigade or battalion will impose general restrictions on their activities to insure security of the withdrawal.

(c) Within limitations imposed, the battalion commander prescribes the size and composition of the battalion DLIC. Normally, the detachments do not exceed one-third of the rifle strength and one-half of the organic supporting weapons of the forward companies. Detachments may include supporting engineers, elements of attached tank units and the reconnaissance platoon, radar teams, the ALO/FAC and necessary FO, REDEYE team(s), medical, command, and control elements. All elements are located so as to indicate that the position is fully occupied.

(d) The employment of night vision devices increases the capability of the DLIC. Normally, one-third of the units' night vision devices will remain with the DLIC.

(e) Deception and secrecy may be obtained by suppressing noise made by withdrawing units, by continuing normal volume or supporting fires, by patrolling, by using dummy positions, and by simulating normal radar coverage and radio traffic. Routes of withdrawal should avoid areas that can be scanned by ground radar. Tanks and carriers employed with forward units normally



NOTES

1. PRIOR TO THE EFFECTIVE TIME OF THE WITHDRAWAL SOME VEHICLES MAY HAVE BEEN INFILTRATED TO THE REAR.
2. AT THE TIME DESIGNATED AS THE EFFECTIVE TIME FOR THE WITHDRAWAL THE MAIN BODY OF THE FORWARD UNITS LEAVES ITS POSITION AND MOVES TO THE REAR INTO ASSEMBLY AREAS.
3. THE COMMANDER MAY ELECT TO WITHDRAW HIS RESERVE UNIT BEFORE, DURING, OR AFTER THE WITHDRAWAL. NORMALLY, THE RESERVE UNIT DOES NOT FURNISH A DLIC EXCEPT AT FORWARD COMPANY LEVEL.

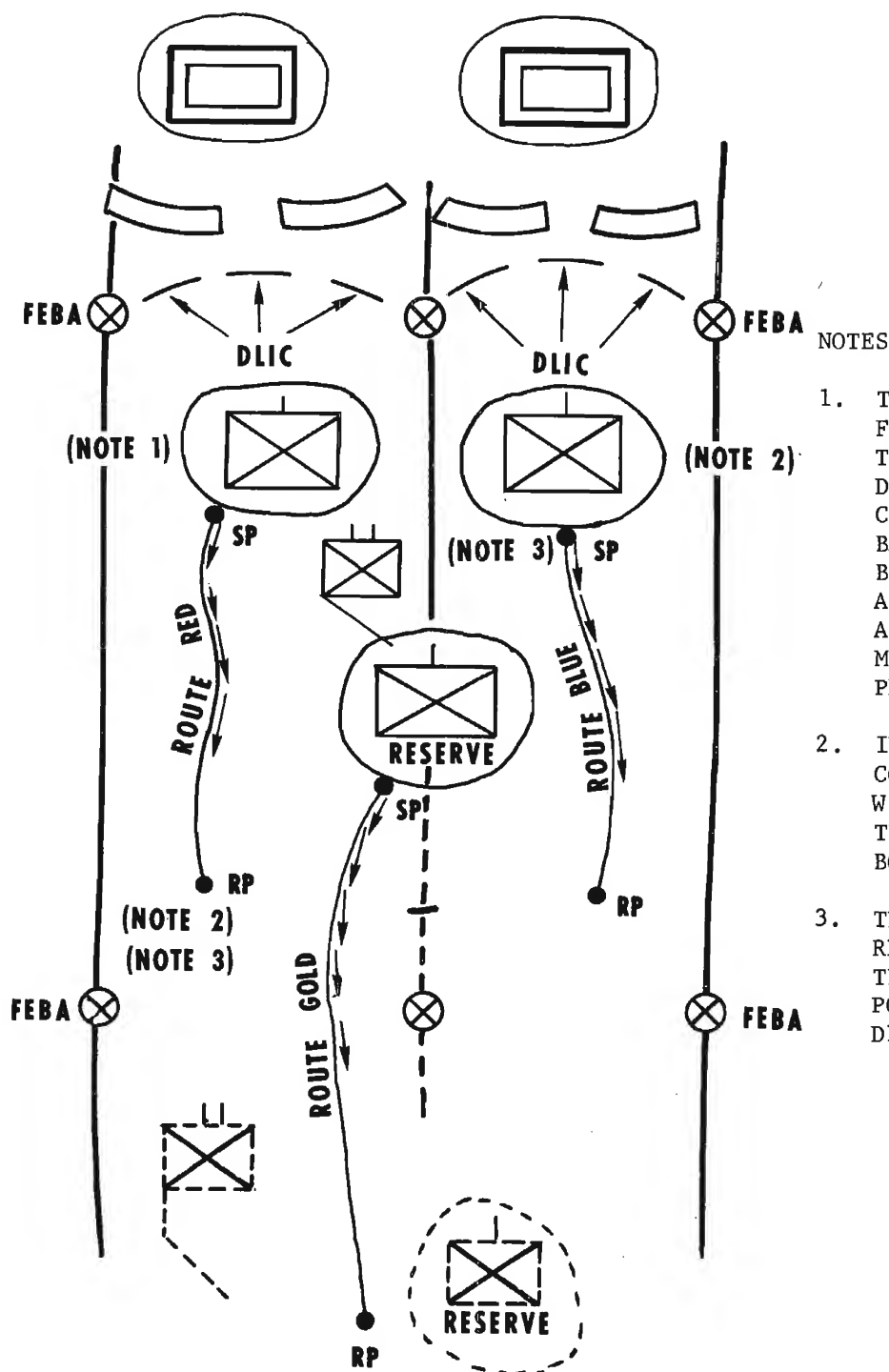
Figure 6-3. Sequence of withdrawal not under pressure.

remain with DLIC when their withdrawal might compromise the secrecy of the operation or when they are needed by the DLIC to accomplish the mission. If tanks or carriers are withdrawn, they use infiltration techniques prior to the withdrawal of the main body. Their withdrawal is accomplished by a ruse or noise diversion such as delivery of artillery fires or an airstrike on nearby enemy positions.

(f) One-half of the mortar platoon normally supports the battalion DLIC. Also, brigade normally provides sufficient artillery to maintain

the appearance of normal artillery fire in support of the DLIC.

(g) The reconnaissance platoon normally remains as the reserve element of the DLIC. It patrols or covers the most likely avenue of enemy approach into the DLIC rear area. The platoon may act as a security element to assist the other detachments. Additionally, it may perform the task of maintaining contact with the enemy during the withdrawal. The priority of these missions is determined by the commander of the DLIC.



NOTES

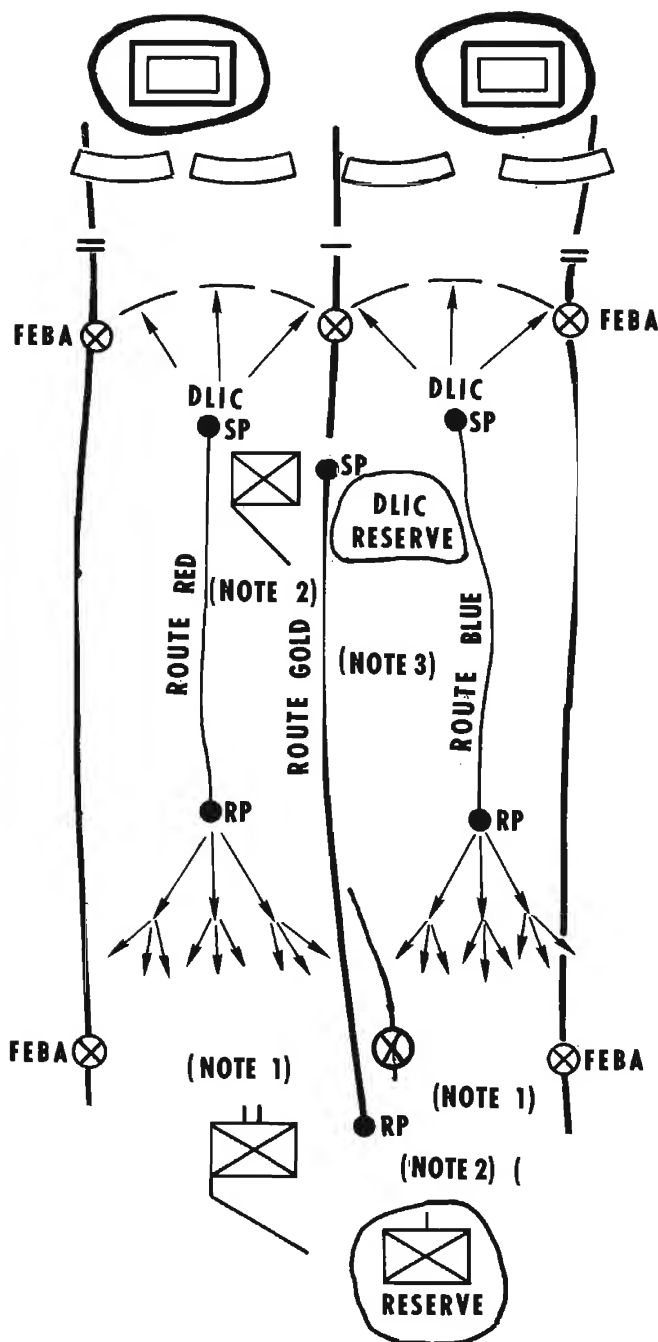
1. THE MAIN BODY OF THE FORWARD UNITS MOVE TO THE REAR LEAVING THE DETACHMENTS LEFT IN CONTACT TO DEFEND THE BATTLE AREA. THE MAIN BODY ASSEMBLES IN ACCORDANCE WITH PRE-ARRANGED PLANS AND MOVES TO THE REAR ON PREDESIGNATED ROUTES.
2. IN THIS SITUATION THE COMMANDER ELECTED TO WITHDRAW HIS RESERVE AT THE SAME TIME AS THE MAIN BODY OF THE FORWARD UNITS.
3. THE RESERVE MOVES TO THE REAR, AS DO ELEMENTS OF THE TRAINS AND COMMAND POST NOT SUPPORTING THE DLIC.

Figure 6-3—Continued.

(h) The battalion commander normally does not employ elements of the reserve company as reserve of the DLIC. He may do so when they are needed to augment the reconnaissance platoon, or when the platoon is not available.

(i) The battalion executive officer is normally designated as the commander of the DLIC. Subsequent to the initiation of the withdrawal,

and at the discretion of the battalion commander, the commander of the detachments assumes responsibility for the sector. He may change the disposition of forces in his sector to preserve the integrity of the position. Alteration of the position is not made until the main body has cleared the forward company area. He reports such changes to the commander of the brigade DLIC.



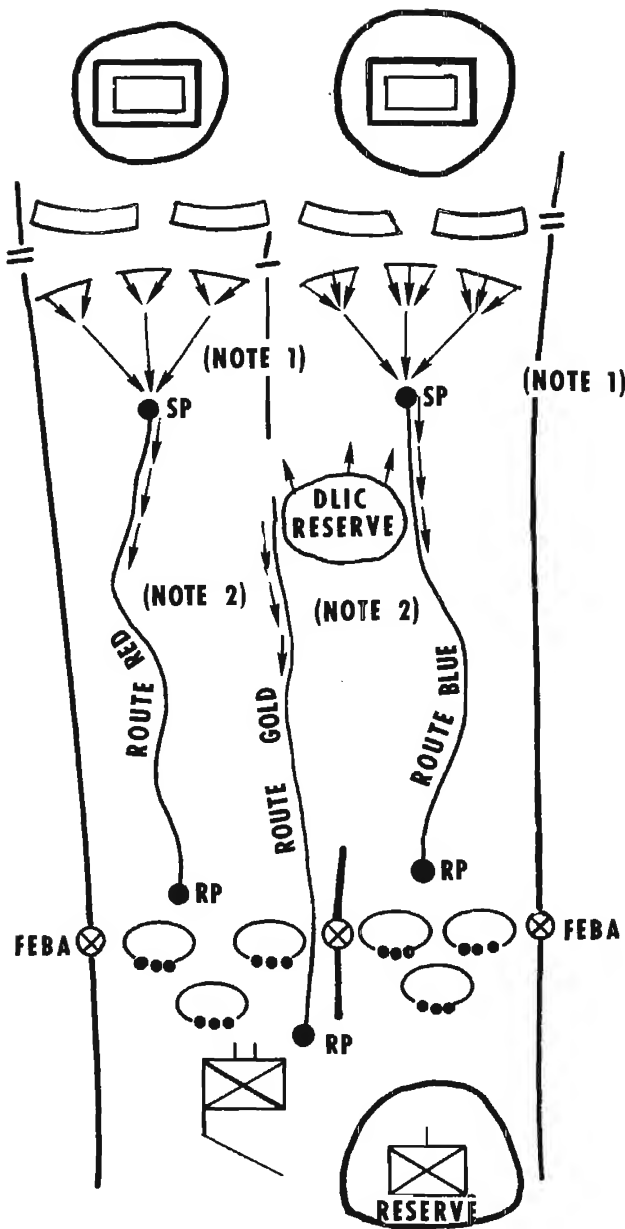
NOTES

1. THE MAIN BODY OCCUPIES THE FEBA OF THE NEW POSITION. NORMALLY THE NEW POSITION WOULD HAVE BEEN ORGANIZED BY A PARTY SENT TO THE REAR PRIOR TO THE WITHDRAWAL.
2. THE RESERVE MOVES TO THE REAR AS DO ELEMENTS OF THE TRAINS AND COMMAND POST LEAVING SUFFICIENT PERSONNEL AND EQUIPMENT TO ENABLE THE COMMANDER OF THE DLIC TO EXERCISE COMMAND AND CONTROL.
3. THE COMMANDER OF THE DLIC NORMALLY CONSTITUTES A RESERVE FROM THE FORCES ALLOCATED TO DLIC. HE CONDUCTS THE DEFENSE OF THE BATTLE AREA. HE IS RESPONSIVE TO THE ORDERS OF THE COMMANDING OFFICER DLIC OF THE NEXT HIGHER UNIT.

Figure 6-3—Continued.

(2) *Control measures.* The battalion commander maintains control of the withdrawal by designating start points and release points, guides, company assembly areas, routes of withdrawal and alternate routes, and route priorities in accordance with those assigned by the brigade commander. He recommends to the brigade commander locations for traffic control posts (TCP) along routes of withdrawal. (The battalion does not establish TCP.) Company assembly areas are located well forward to facilitate early organization of the companies for the movement to the

rear. These assembly areas should be on good routes of withdrawal, in defilade if possible, with adequate turnaround space if transportation is to be used. Assembly areas should be planned for a withdrawal not under enemy pressure but may not be occupied if each commander determines that the movement can be controlled without their use. If assembly areas are used, they should be occupied for the briefest possible period; each unit occupying an assembly area provides its own security.



NOTES

1. ON ORDER OF THE COMMANDER OF THE DLIC, HIGHER HEADQUARTERS, THE DLIC WITHDRAWS, NORMALLY USING THE SAME ROUTES AND ASSEMBLY AREA AS DID THE MAIN BODY, AND MOVES TO THE REAR.
2. THE COMMAND ELEMENT DLIC MOVES TO THE REAR. THE DLIC RESERVE DEPLOYS AND COVERS THE WITHDRAWAL OF THE DLIC. IF A COVERING FORCE HAD BEEN PROVIDED BY HIGHER HEADQUARTERS, THE RESERVE OF THE DLIC WOULD WITHDRAW AS THE LAST ELEMENT OF THE DLIC. SIMULTANEOUSLY RECONNAISSANCE AND SECURITY ELEMENTS FROM THE COVERING FORCE WOULD MOVE FORWARD AND ESTABLISH CONTACT WITH THE ENEMY.

Figure 6-3—Continued.

(3) Fire support.

(a) Plans for supporting fires include the maintenance of normal nonnuclear fires in the area. This normally requires increased rates of fire from the reduced number of weapons supporting the DLIC.

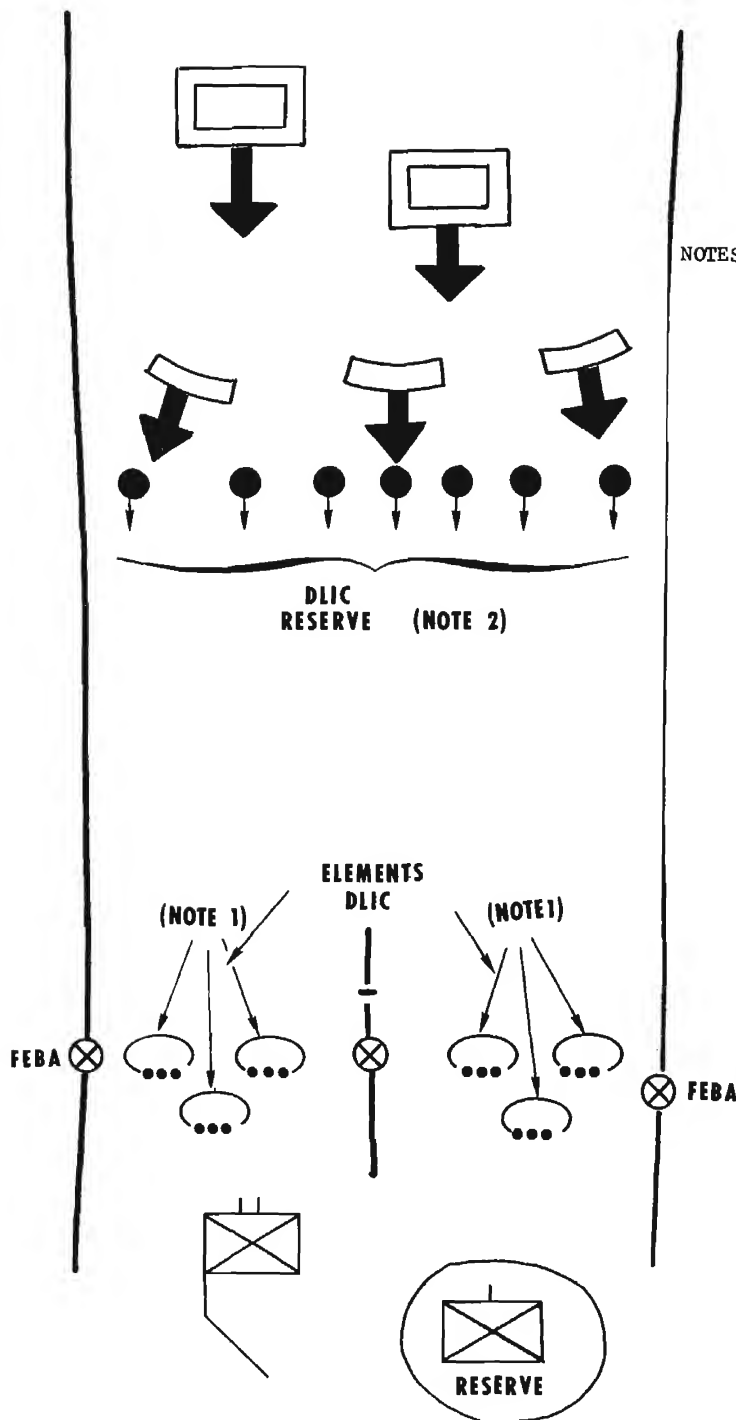
(b) A withdrawal not under pressure is normally made without the use of scheduled nuclear weapons support since success of the withdrawal depends primarily upon secrecy. However, if the withdrawal is threatened by heavy enemy pressure, on-call fires are used. If nuclear weapons are used to assist in disengagement, safety lines must be clearly delineated and recognizable.

(4) *Secrecy.* All activities are restricted

which might disclose the intention to withdraw (such as unusual movement of vehicles to the rear). Necessary motor movements to the rear, including reconnaissance, are conducted in a manner which will not betray the withdrawal, i.e., they avoid noise and concentration of vehicles.

(5) Transportation and troop movement.

(a) When infantry units other than mechanized execute a ground withdrawal not under pressure, the following techniques are normally followed. The minimum number of vehicles necessary for movement of supplies and equipment are positioned as far forward as practicable. Sufficient vehicles are placed in assembly areas to transport the heavy weapons and ammunition of the DLIC.



- NOTES: 1. THE DLIC WITHDRAWS AND MOVES TO THE REAR REJOINING THE MAIN BODY WHICH IS ALREADY DEPLOYED ON THE FEBA.
2. SINCE NO HIGHER HEADQUARTERS PROVIDED A COVERING FORCE FOR THIS OPERATION, THE RESERVE DLIC DEPLOYS AND MAINTAINS CONTACT WITH THE ENEMY EXECUTING A WITHDRAWAL THROUGH A REARWARD POSITION AS IT CLOSES ON THE FEBA. IF A COVERING FORCE HAD BEEN PROVIDED BY HIGHER HEADQUARTERS, THAT COVERING FORCE WOULD HAVE MAINTAINED CONTACT WITH THE ENEMY.

Figure 6-3—Continued.

It is highly desirable to completely motorize or mechanize the DLIC to facilitate prompt and rapid movement to the rear. Priority of allocation of available vehicles is given to the detachments.

(b) When a mechanized infantry battalion executes a withdrawal not under pressure, mechanized infantry vehicles may be withdrawn using one of the following techniques:

1. Mechanized infantry vehicles, except

those provided for DLIC, may be withdrawn to company assembly areas. Artillery and mortar fires are used to cover the noise of movement. This technique may be used when there are few routes to the rear and when early movement of mechanized infantry vehicles can be made without compromising secrecy.

2. Mechanized infantry vehicles may be withdrawn to company assembly areas during

daylight using infiltration techniques unless such movement is restricted by higher headquarters. This technique is appropriate when enemy air activity is limited and when infiltration can be accomplished without compromising the secrecy of the operation.

3. All forces on position may withdraw simultaneously without using DLIC.

4. All mechanized infantry vehicles may remain initially in their forward positions. The main body moves on foot to the rear to predesignated assembly areas or along routes where they may later be picked up by mechanized infantry vehicles which remained on position. Immediately prior to the withdrawal of the DLIC, mechanized infantry vehicles for the main body begin their movement to the rear where they pick up designated elements of the main body. Plans should provide for loading dismounted elements on specifically designated mechanized infantry vehicles to facilitate loading and retention of tactical integrity during the remainder of the move and on the next position. Until mechanized infantry vehicles remaining on the initial position (usually each with two or three men) begin their withdrawal, they may be used to add additional firepower to the DLIC. This technique is appropriate when multiple routes to the rear enable a quick and orderly withdrawal of all mechanized infantry vehicles and when there is danger of compromising the secrecy of the withdrawal by earlier movement.

(6) *Supply and medical evacuation.*

(a) Before the withdrawal starts, unit commanders insure that the level of ammunition supply is adequate for the action. The first troops to withdraw can, if necessary, transfer ammunition to the DLIC. Ammunition and other supplies are delivered at the new position in time to fill anticipated needs.

(b) A skeleton aid station remains with the DLIC. Ambulances are employed with the forward elements of the DLIC to insure that all patients are evacuated at the time of withdrawal. During a voluntary withdrawal, medical evacuation by air may be limited.

(7) *Communication.*

(a) Communication is maintained in the old position and established in the new position. Communication personnel are informed of the time of displacement, routes of movement, and locations of the battalion and company command posts in the new position.

(b) Adequate communication personnel remain with the DLIC to maintain continuous wire communication, if possible, by using lines es-

tablished in the old position. Wire communication between the new battalion command post and the DLIC is desirable because of normal restriction on radio traffic. Wire lines are cut and numerous sections removed upon withdrawal of DLIC.

(c) During the withdrawal, listening silence is normally maintained on the new position and the use of radio by displacing units is restricted. Normal radio traffic in the old position is simulated for deception.

(d) Pyrotechnics are used in the old position as prearranged signals to the extent permitted by the simulation of normal activity.

(8) *Conduct of withdrawal without pressure.*

(a) The commander who orders a withdrawal usually specifies the exact time the main body of the battalion is to begin its withdrawal.

(b) Trains and rear installations usually precede movement of the main body to the rear, followed in turn by company vehicles not required by the main body or the DLIC. They may move by infiltration during daylight, observing strict security measures so as not to disclose the withdrawal to the enemy. Such movement must be authorized by the brigade or higher commander.

(c) The reserve may withdraw prior to the withdrawal of the main body of the forward companies. However, if the battalion commander anticipates pressure from the enemy, he may keep the reserve company in position until the main body of forward companies has passed through the reserve position.

(d) All elements of forward companies not designated as part of the DLIC normally withdraw simultaneously. Small units withdraw through platoon assembly areas over predesignated and reconnoitered routes. Units move by motor or on foot through start points along previously designated routes to the rear position. Supporting units and weapons are normally attached for the period of the withdrawal to the unit in whose area they are employed.

(e) Artillery and mortars not remaining to support the DLIC are usually displaced to positions to the rear soon after the main body of forward companies starts to withdraw. This permits maximum fire support during the initial stage of the withdrawal.

(f) Rear guard and flank security elements are designated to secure the movement of the main body.

(g) Tanks may be withdrawn by infiltration prior to the withdrawal of the main body if there is not a definite threat of enemy armor and if their withdrawal will not nullify deception measures. Tanks that remain with the DLIC withdraw with other elements of the detachments.

Tanks with searchlights or infrared equipment may provide assistance to the detachments in the event of an enemy attack during night withdrawal.

(h) Elements of the DLIC withdraw simultaneously at a prescribed time, or on order, using the same assembly areas and routes of withdrawal designated for the main force if such areas and routes have not been compromised to the enemy. The time of withdrawal generally is prescribed by the higher commander. Suitable security is maintained until the DLIC are under the protection of a force to the rear. The authority to withdraw the battalion DLIC rests with the commanders of the brigade DLIC unless the battalion is on an independent mission or the brigade delegates the authority to the battalion commander.

(i) The COP (if established) for the new position is normally manned by elements of the reserve company. If a COP is not established, elements of the reserve may assist forward companies in preparing their positions, if necessary, or they may immediately begin preparation of reserve positions.

(9) *Simultaneous withdrawal without detachments left in contact.* When friendly forces have a greater degree of mobility than the enemy and when the forces in contact are not under enemy pressure, it may be feasible to withdraw all forward units simultaneously without leaving detachments in contact. If such a movement is undertaken, the withdrawing unit forms a rear guard to protect the movement against pursuit.

6-9. Withdrawal Under Enemy Pressure

a. *General.* A withdrawal conducted under enemy pressure is based on elements fighting their way to the rear, using delaying tactics. Terrain permitting, this action is best accomplished by mechanized and armor elements. If a force conducting a withdrawal under enemy pressure contains both infantry and mechanized infantry, the mechanized elements are employed in the delay action as a covering force, with the infantry occupying delaying positions. A high degree of coordination and skillful employment of obstacles and terrain is essential under these conditions. Authority for withdrawal normally rests with the lowest echelon of command consistent with the mission.

(1) Control measures used for a withdrawal under enemy pressure are similar to those for a withdrawal not under enemy pressure.

(2) Since higher headquarters may or may not provide a covering force, the commander may elect to use his reserve as a covering force or to

withdraw without providing a covering force. This decision is based on the following considerations:

(a) Availability of forces to constitute a covering force.

(b) Availability of time to deploy a covering force.

(c) Availability of suitable terrain on which to employ a covering force.

(d) Location of any covering forces provided by higher headquarters.

(e) Enemy capability to attack.

(3) When simultaneous withdrawal is not practicable, the commander must determine the order of withdrawal. The decision must be based on determining which plan best preserves the integrity of the force and which best contributes to the accomplishment of the mission. Generally, the least engaged units are withdrawn first.

b. *Concept.* If a withdrawal under pressure is required, and the battalion is on the FEBA, a covering force may be used to assist in disengagement and to interrupt the enemy pursuit. Forward units withdraw intact and detachments are not left to cover the withdrawal. Success of a withdrawal under pressure depends in great part upon local air superiority and effective employment of covering forces. Local counterattacks may also be used to assist forward units to break contact with the enemy (fig. 6-4).

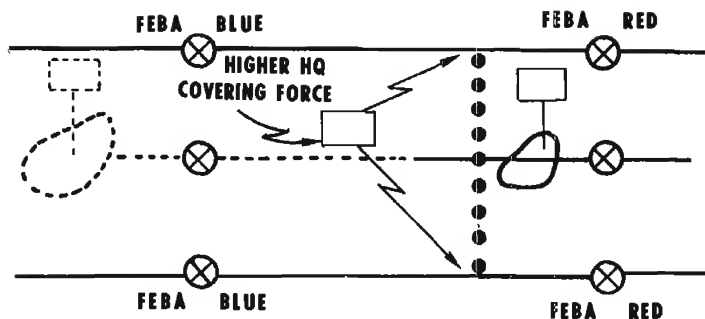
(1) Covering forces.

(a) The battalion covering force is normally the battalion reserve reinforced with supporting units and weapons. The primary mission of the covering force is to cover the withdrawal of forward units by fire; however, the covering force may also be required to assist units in disengaging and to conduct limited offensive actions.

(b) In designating the initial location for the covering force, the battalion commander considers the defensibility of the terrain, the direction of withdrawal, possible enemy courses of action, ability to cover the withdrawal of the companies in contact, and the location of the brigade covering force.

(2) Control measures.

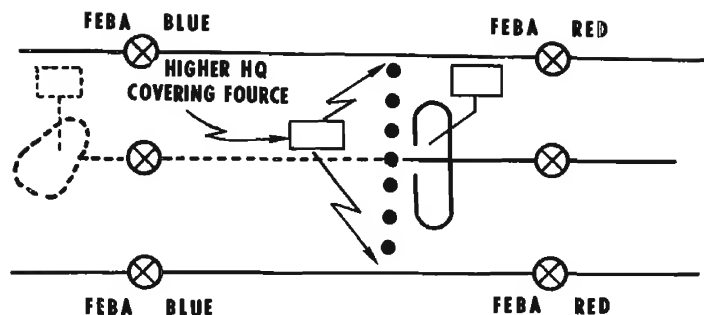
(a) Control measures for a withdrawal under pressure are similar to those used for a withdrawal without pressure. Sectors for withdrawal and covering positions are assigned. Phase lines and checkpoints may be used to facilitate control. Assembly areas are used only when deemed necessary to insure orderly movement and control.



SITUATION: A covering force has been provided by higher headquarters.

MISSION: Execute withdrawal under pressure from Position RED to Position BLUE.

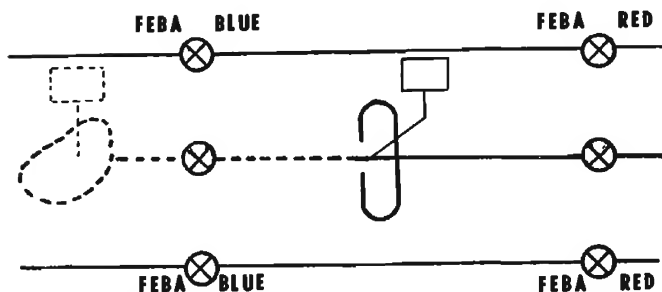
EXPLANATION OF MANEUVER: Command withdraws. Forward elements withdraw in sector behind higher headquarters covering force and occupy Position BLUE. Reserve of withdrawing command does not cover withdrawal of forward elements. Reserve occupies assembly area at Position BLUE.



SITUATION: A covering force has been provided by higher headquarters.

MISSION: Execute withdrawal under pressure from Position RED to Position BLUE.

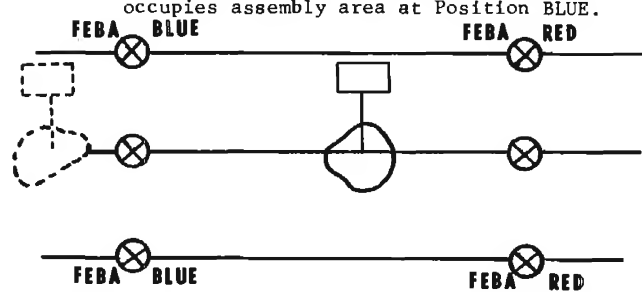
EXPLANATION OF MANEUVER: Command withdraws. Forward elements withdraw in sector behind covering force provided by the reserve of the withdrawing command and occupy Position BLUE. Reserve of withdrawing command covers withdrawal of forward elements by delaying or screening forward of the higher headquarters covering force. Reserve withdraws through the higher headquarters covering force and occupies assembly area at Position BLUE.



SITUATION: No covering force has been provided by higher headquarters.

MISSION: Execute withdrawal under pressure from Position RED to Position BLUE.

EXPLANATION OF MANEUVER: Command withdraws. Forward elements withdraw in sector behind covering force provided by the reserve of the withdrawing command and occupy Position BLUE. Reserve covers the withdrawal of forward elements by delaying or screening forward of Position BLUE. Reserve occupies assembly area at Position BLUE.



SITUATION: No covering force has been provided by higher headquarters.

MISSION: Execute withdrawal under pressure from Position RED to Position BLUE.

EXPLANATION OF MANEUVER: Command withdraws. Forward elements provide their own covering force. Forward elements withdraw in sector and occupy Position BLUE. Reserve of withdrawing command does not cover the withdrawal of forward elements. Reserve occupies assembly area at Position BLUE.

Figure 6-4. Techniques of covering withdrawals under pressure.

(b) Assigning sectors for withdrawal facilitates coordination between adjacent units. Sectors are designated by extending boundaries to the rear as far as the companies may have to move in deployed formation. Normally this is through the brigade or higher command covering force; and if a new position is to be occupied, the boundaries normally extend through the new position.

(c) Company assembly areas, if used, are in defile normally in rear of the battalion cov-

ering force. It may be desirable to designate alternate assembly areas. If enemy pressure is great, these areas may be located in rear of the covering force of a higher echelon.

(d) If the enemy pursues aggressively and a brigade covering force is not close enough to cover the withdrawal, intermediate covering positions are occupied and delaying actions are conducted on previously selected terrain. Successive covering positions may be used alternately by the

reserve and the forces initially in contact until the battalion comes under the protection of the brigade covering force or reaches the new position.

(3) Fire support.

(a) All available fires are planned on known and suspected enemy positions and routes, including assembly areas, attack positions, and reserves. This fire support is planned to disrupt and disorganize the enemy and retard his reaction to the withdrawal operation. Smoke is used to blind enemy observation of the disposition of friendly forces and their movement in the withdrawal without unduly obscuring friendly observation. Nuclear fires on the enemy may disorganize him sufficiently to permit friendly forces to break contact and may assist in preventing or delaying pursuit.

(b) Tactical nuclear weapons provide a significant advantage to forces withdrawing from action under enemy pressure. Fires are provided to relieve pressure on heavily engaged forces and, in particular, to destroy enemy reserve forces.

(4) Transportation and troop movement.

(a) To avoid traffic congestion, a movement plan is prepared and put into effect upon initiation of the withdrawal. Guides and TCP are furnished by brigade or by elements attached from brigade or division to insure orderly and rapid movement to the rear.

(b) Company vehicles are brought as far forward as practicable to move weapons and ammunition to the rear. The number of vehicles brought forward is prescribed by the battalion commander, and it is the minimum consistent with load requirements. When practicable, supply and administrative cargo vehicles are brought forward to move supplies and equipment to the rear. Vehicles not needed in forward areas are loaded and moved to the rear on prescribed routes.

(5) Supply and evacuation.

(a) Units in forward positions must be adequately supplied, but caution is exercised to preclude overstocking. As they pass through, withdrawing units may transfer supplies to covering forces. Supplies (except medical) that cannot be evacuated are destroyed.

(b) Patients at aid and collecting stations are evacuated before the withdrawal begins. Patients within the covering forces are evacuated by aircraft, ambulances, or other available transportation.

(6) Communication.

(a) Special precautions are taken to avoid

changes in communication traffic which would disclose the withdrawal or its details.

(b) The battalion communications officer or his representative reconnoiters covering positions, routes of withdrawal, and the new position, and prepares for adequate communication throughout the operation. Wire is used where possible. Communication to distant, detached, and mechanized units usually is limited to radio and messenger.

(c) During the initial stages of withdrawal, communication facilities are maintained as long as practicable on the old position. When command posts close, march command posts are opened, wire lines forward of covering forces are cut and sections removed to prevent their use by the enemy. Communication personnel precede the main body to the new rearward position to install the battalion wire system for defense or delaying action.

(d) The withdrawal route of the battalion command post is announced. Battalions and companies select march control posts along the routes of withdrawal and inform higher, subordinate, and supporting units of their location. Army aircraft may be used to displace key elements of the command post, to provide airborne radio relay, and to provide the commander an aerial command post.

(7) Employment of supporting and attached units.

(a) All available fire support is employed to assist forward units during the conduct of the withdrawal.

(b) Attached tanks are employed to engage enemy armor by fire at long ranges, to attack or block enemy forces attempting to penetrate or bypass the battalion covering force, and to cover the withdrawal of elements of the covering force. Tank and mechanized infantry units appropriately cross-reinforced are ideally suited for employment in a counterattack to extricate heavily engaged elements. Platoons of an attached tank company may be attached to the forward rifle companies to support their withdrawal. After the forward companies withdraw, an entire tank company may be employed as a part of the battalion covering force. Tanks and infantry habitually work together; however, when the terrain is trafficable and provides good observation, and enemy infantry has not closed on the primary position, the infantry elements generally withdraw before the tanks. If the terrain is heavily wooded, or observation is otherwise restricted or at night, the infantry is normally used to cover the withdrawal of the tanks.

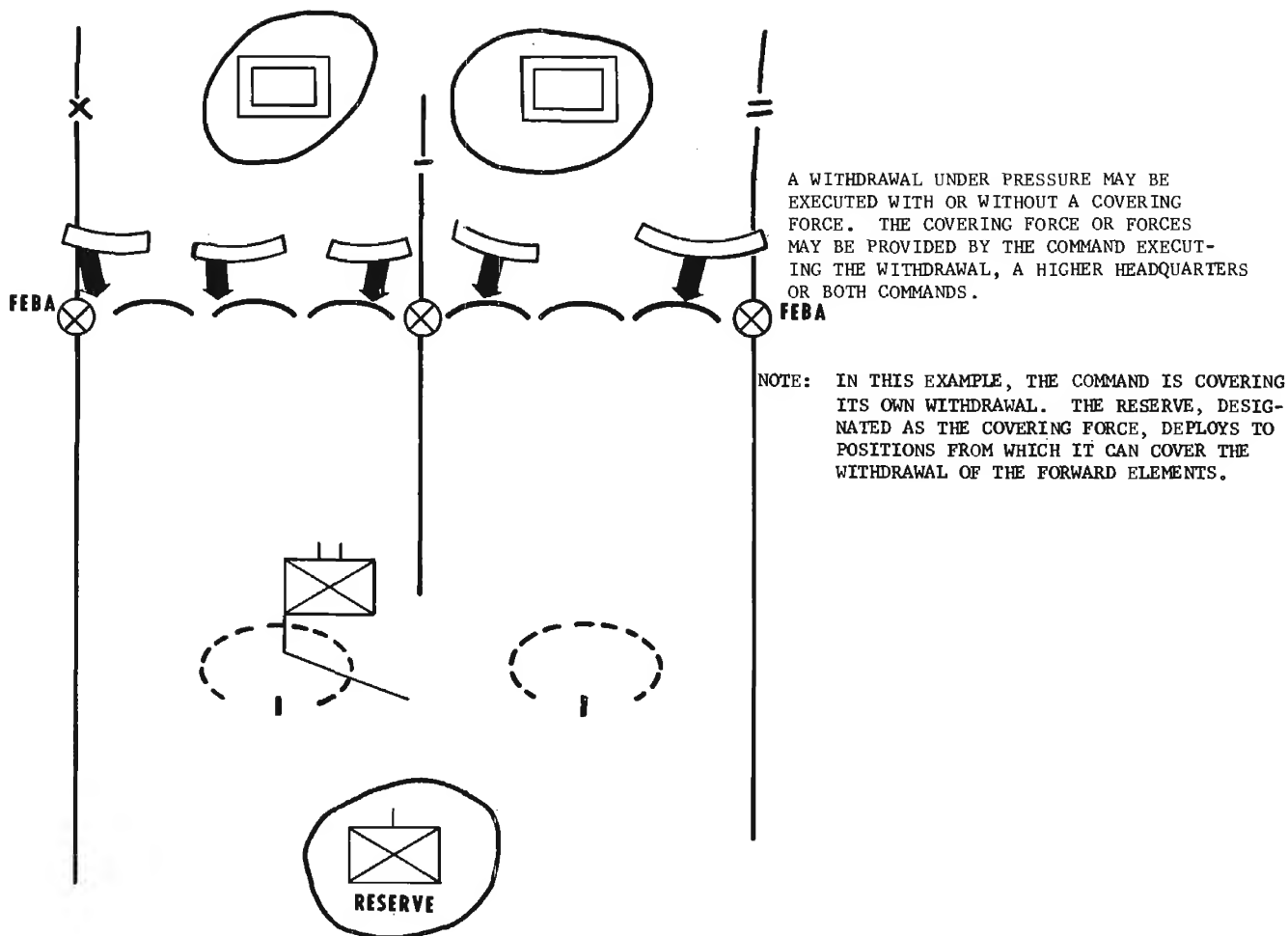


Figure 6-5. Sequence of a withdrawal under pressure.

(c) The reconnaissance platoon may be used to maintain contact with the enemy force or to secure flanks. It is also used to give warning of hostile movement and, within its capabilities, harass, delay, and destroy pursuing enemy forces. It may be attached to the battalion covering force when forward units withdraw. If not required for its basic missions, it may be used to furnish guides or assist in traffic control.

(d) The mortar platoon is normally retained in general support.

(e) Antitank squads are usually attached to forward companies to engage enemy armor at long ranges. Elements of the antitank platoon may be attached to the battalion covering force as forward companies withdraw through the covering force.

(f) Airstrikes are directed against targets of opportunity.

(g) Air defense artillery units, if attached, are disposed to provide air defense along the routes of withdrawal and to engage ground targets.

(h) Attached and supporting engineers prepare obstacles to the front, flanks and in depth to delay the advance of the opposing force. They assist in destroying nonmedical supplies which cannot be evacuated, and maintain or improve routes of withdrawal. When engineers are attached to the battalion for the withdrawal, they may be further attached to the battalion covering force and to each withdrawing unit.

(i) Available vehicles are used to the maximum to facilitate the withdrawal. When the number of vehicles is limited, priority in attachment is made to those units in whose areas the most difficult combat or withdrawal is anticipated. In the mechanized infantry battalion, carrier-mounted weapons may be used to support the withdrawal of forward elements.

(j) Tactical nuclear weapons are employed as discussed in (3)(b) above.

(k) Chemical units may place smoke to screen selected areas, and they provide technical supervision for employing chemical agents to con-

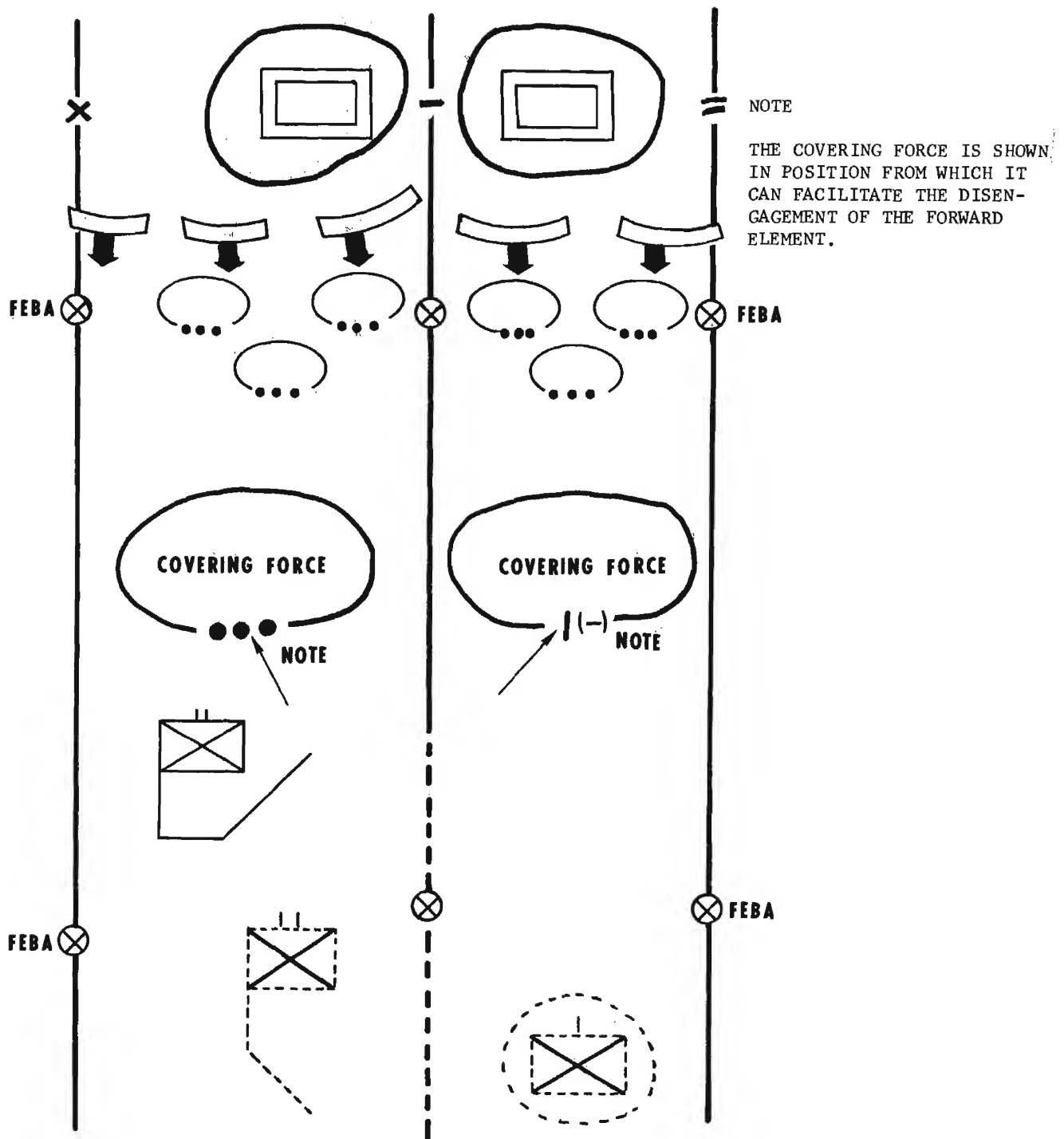


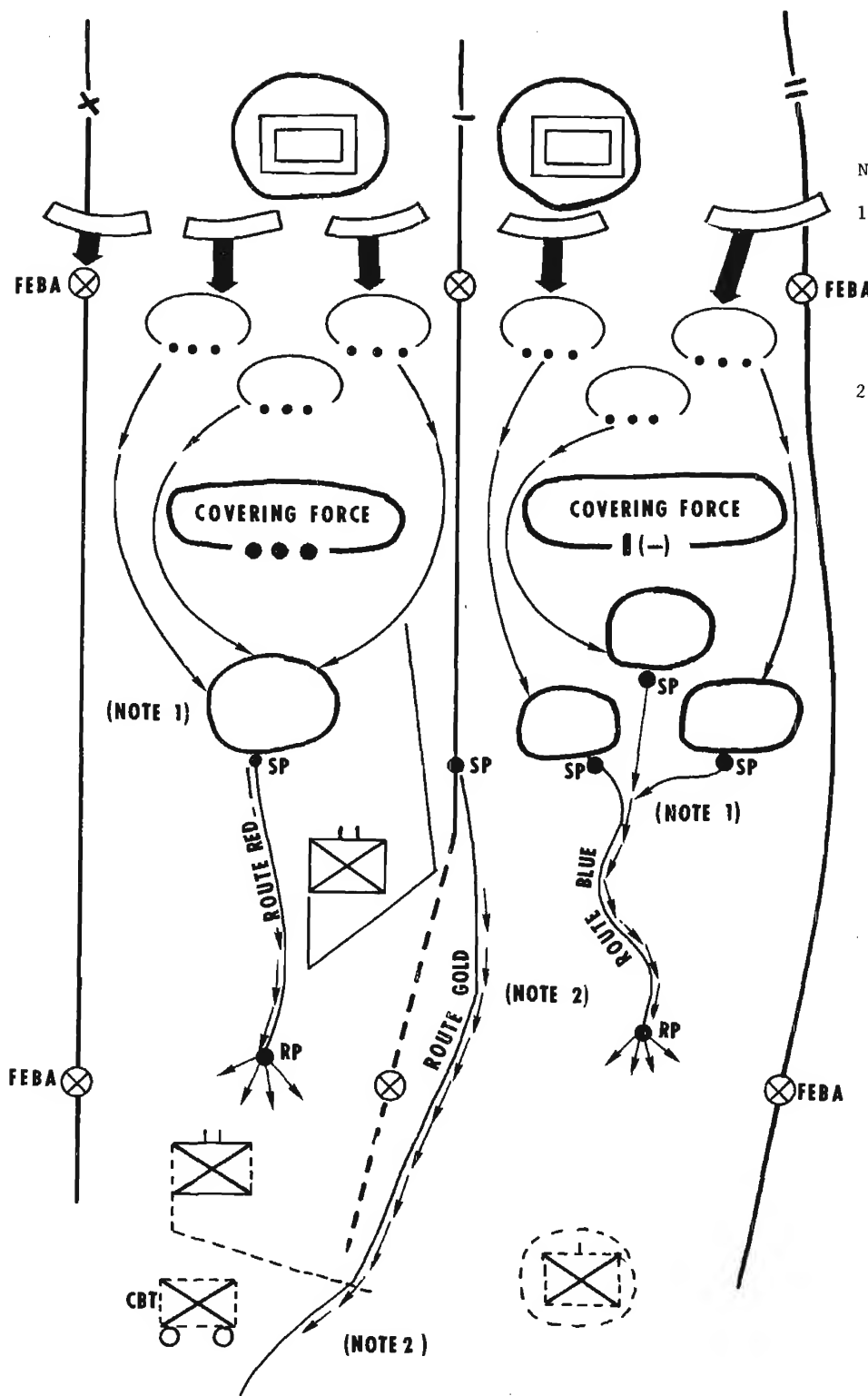
Figure 6-5—Continued.

taminate obstacles, defiles, and likely avenues of enemy advance.

(8) *Conduct of a withdrawal under pressure.* See figure 6-5.

(a) The battalion commander prescribes the sequence of withdrawal of forward companies. When the terrain and situation permit, forward units are withdrawn simultaneously. When this is

not practicable, a determination must be made as to the best order of withdrawal to preserve the integrity of the battalion and contribute to the accomplishment of the mission. The least engaged units are normally withdrawn first. The fires of organic and supporting weapons are used to assist in the disengagement. In some situations, it may be desirable to conduct limited offensive action to



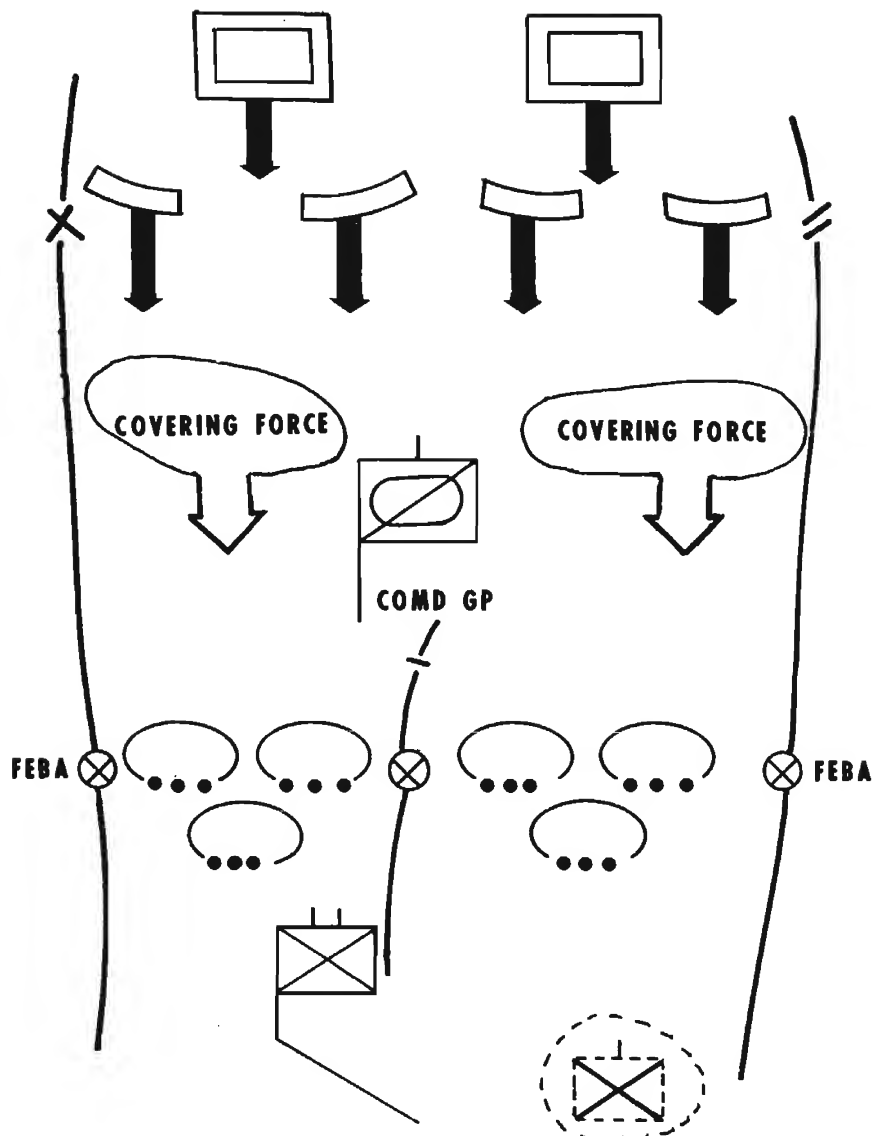
NOTES

1. IDEALLY ALL UNITS ON THE FEBA WILL BE WITHDRAWN SIMULTANEOUSLY TO POSITIONS TO THE REAR OF THE COVERING FORCE; WHERE THEY MAY ASSEMBLE AND THEN MOVE TO OCCUPY THE NEW POSITION.
2. THE TRAINS ALSO MOVE TO A LOCATION TO THE REAR OF THE NEW POSITION.

Figure 6-5—Continued.

relieve enemy pressure on forward elements to permit their withdrawal. Smoke is used to reduce enemy observation when disengaging such units. Tactical air support, if available, should be employed to the maximum.

(b) Ordinarily, the initial withdrawal of engaged units is directly to the rear under cover of all available fires. Although the battalion covering force normally covers the withdrawal of forward companies, in some instances each company



NOTE: THE COVERING FORCE EXECUTES DELAY IN SECTOR AND EXECUTES A WITHDRAWAL THROUGH A REARWARD POSITION (THROUGH THE ELEMENTS NOW OCCUPYING THE NEW POSITION). THIS COVERING FORCE NORMALLY CONSTITUTES THE RESERVE ON THE NEXT POSITION.

Figure 6-5—Continued.

may be required to cover its own withdrawal. After the forward units maneuver behind the covering force, they may move to designated company assembly areas or directly to a rearward position.

(c) Units gain passive protection against enemy air attacks by using air guards and dispersed formations. Automatic weapons are placed in firing positions for air defense during halts and may be stationed in advance at critical points along routes of withdrawal. If air defense artillery is available, it is integrated into the movement. Redeye air defense teams are normally at-

tached to rifle companies during the withdrawal.

(d) As a means of maintaining secrecy and deception, vehicles moving to the rear proceed singly or in small groups. Deception may be gained also by using open formations of vehicles moving toward the front. Careful use of smoke and selection of withdrawal routes may help conceal operations.

(e) If the brigade covering force is not positioned to cover the withdrawal of the battalion covering force, forward companies and the battalion covering force move from one intermediate

covering position to another until the battalion reaches a secure position beyond the enemy area of influence. In this type action, small, mobile forces strong in firepower take maximum advantage of terrain from which long-range fires can be placed on the enemy. These mobile covering forces must be withdrawn before they become engaged in close combat unless otherwise ordered by the commander of the withdrawing unit. Since the conduct of this type action depends on small-unit action, authority for withdrawal normally rests with the lowest echelon of command consistent with coordination requirements within the battalion.

(f) Throughout all phases of the withdrawal operation, a dispersed formation is maintained to the extent possible consistent with necessary speed of movement and the capability to cover forward units and delay the enemy advance.

6-10. Battalion as a Covering Force

a. A battalion may be assigned a mission of covering the withdrawal of forward battalions of the brigade or it may operate as part of the reserve brigade to cover the withdrawal of a forward brigade. When the battalion is assigned a covering force mission, the initial position and the period of time it is to be held or the conditions under which the battalion withdraws are prescribed by a higher commander. The battalion is usually reinforced for a covering force mission.

b. The battalion organizes the covering force position in a manner generally similar to that used in a delaying action. A battalion operating as a covering force may accomplish its mission by:

(1) Delaying enemy troops with demolitions and obstacles.

(2) Employing nuclear and nonnuclear long-range fires.

(3) Counterattacking if the situation warrants.

(4) Covering its own withdrawal with its reserve and the fires of organic and supporting weapons.

c. The battalion reserve is used to meet an envelopment of either flank, block a breakthrough, counterattack, reduce minor penetrations, extricate heavily engaged units, and cover the withdrawal of the remainder of the battalion.

6-11. Withdrawal by Air (Extraction)

a. General.

(1) A withdrawal by air (extraction) is an operation in which all or a part of the battalion disengages from the enemy and is moved by air to

another location. The withdrawal may be forced by enemy pressure or it may be conducted without enemy pressure; however, extractions are normally not initiated under enemy pressure.

(2) All battalions have the capability of being withdrawn by air. However, withdrawal of the mechanized infantry battalion is limited to personnel and light equipment only.

(3) Local air superiority is required for a successful withdrawal by air during daylight. A small force relatively close to the line of contact may withdraw without air superiority by taking advantage of darkness or other conditions of poor visibility.

(4) A force withdrawn by air may move to an assembly area behind friendly lines or directly to another battle area.

b. Planning for the Withdrawal.

(1) Battalions and subordinate units plan a withdrawal by air in as much detail as time permits. Brigade normally allocates available airlift to withdrawing battalions. Plans rely heavily on unit SOP to reduce the amount of detail in orders.

(2) When an operation involves a high degree of risk and there is a probability that a withdrawal by air may be necessary, plans are made concurrently with the plan of operation.

(3) Commanders with key personnel at all levels make as thorough a reconnaissance as possible consistent with time limitations and security.

c. Conduct of the Withdrawal.

(1) Security elements provide cover for the main body as it assembles and moves to the pickup zone and is extracted. The security element may be composed of small detachments from each subordinate unit, or it may be one of the subordinate units. The latter is more desirable since unit integrity facilitates control and assures more effective reaction in case of an attack during the withdrawal. It also facilitates control for a unit withdrawing and executing an air assault into another area. The security element assumes the task of securing the defensive position, to include the pickup zone, at a time designated by the commander of the unit conducting the withdrawal.

(2) Supporting fires, close air support, mines, and obstacles are exploited to prevent the enemy from pursuing the withdrawing force.

(3) During a withdrawal under enemy pressure, emphasis is placed on secrecy and the simulation of normal activity as long as possible.

(4) On arrival in the loading area, units complete preparations for loading and form into aircraft load groups. Tactical loading may be sacri-

ficed for speed and maximum use of the capacity of aircraft.

(5) As soon as the main body of the battalion completes its withdrawal, the covering force begins its withdrawal.

(6) Separate withdrawals by each company

from widely separated pickup zones is an alternate method that should be considered when the battalion is dispersed or concentration of all companies is not feasible.

d. For further details of withdrawal by air, see FM 57-35 and FM 61-100.

Section V. DELAY

6-12. General

A delay is an operation in which a force under pressure trades space for time while inflicting maximum punishment on the enemy without becoming decisively engaged. A unit is decisively engaged when it loses its freedom of maneuver and can no longer initiate planned action. Although elements of a battalion task force may be decisively engaged, the task force may still be able to execute the delay.

a. Delay may be accomplished on either successive positions or alternate positions (fig 6-6). Continuous delay is inherent in all types of delay. Four basic factors influence selection of the method to be used:

(1) *Width of sector compared to forces available.* In order to delay on alternate positions, the command must have sufficient forces to permit the employment of forces on two delaying positions simultaneously. If forces are insufficient, delay on successive positions is required.

(2) *Relative combat power of opposing forces.* In a delay, it is expected that the enemy will have the advantage in relative combat power. As the ratio of combat power increases in favor of the enemy, the more the successive delay is favored.

(3) *Relative mobility of opposing forces.* Although a delaying force seeks to degrade the mobility of the enemy by controlling routes and avenues of approach, if the enemy possesses a marked advantage in mobility, this advantage may be overcome to some extent by employing alternate delay. In alternate delay, a large part of the movement of friendly forces is made out of contact with the enemy.

(4) *Number and location of delaying positions in depth compared to the duration of the delaying operation.* The commander must consider how many suitable delaying positions are available in depth throughout his assigned sector; he must determine how much delay can be obtained on each position comparing advantages of delaying on alternate positions against delaying on successive positions. Because a reserve is not nor-

mally available on each position in alternate delay, the commander may decide not to remain on each delaying position for as long a period of time as would be possible if delaying on successive positions were employed. If only one suitable delaying position is available in the sector, delay on successive positions is indicated.

b. Planning a delay is highly centralized; however, execution is decentralized to the lowest level to which specific missions are assigned. Movement of delaying forces is coordinated to preserve security and command integrity. Commanders at lower echelons are frequently given authority to execute offensive maneuver against enemy forces provided such action does not endanger accomplishment of the mission.

c. The areas of a delaying position are similar to those used in the defense: a security area, a forward defense area, and a reserve area. Normally a wide sector is assigned to the battalion and a COP is not feasible. Emphasis is placed on local security.

d. The effective use of obstacles, particularly when covered by fire, reinforces the delaying capability. Delaying forces offer continuous opposition to force the enemy to deploy and maneuver.

6-13. Planning the Delay

a. A delaying action mission assigned to the battalion usually will include the general location of the initial delaying position (if the battalion is not in contact), the area for delay, and the period of time the battalion is to delay on, or forward of, a designated position. Times of withdrawal, phase lines, and successive or alternate delaying positions may also be prescribed by brigade or higher headquarters.

b. Within this framework, the battalion commander establishes his plan of maneuver and plan of fire support. He may designate delaying positions for his battalion in addition to those prescribed by the higher commander. The number of positions to be occupied depends on the total space available for delay, the nature of the terrain, rela-

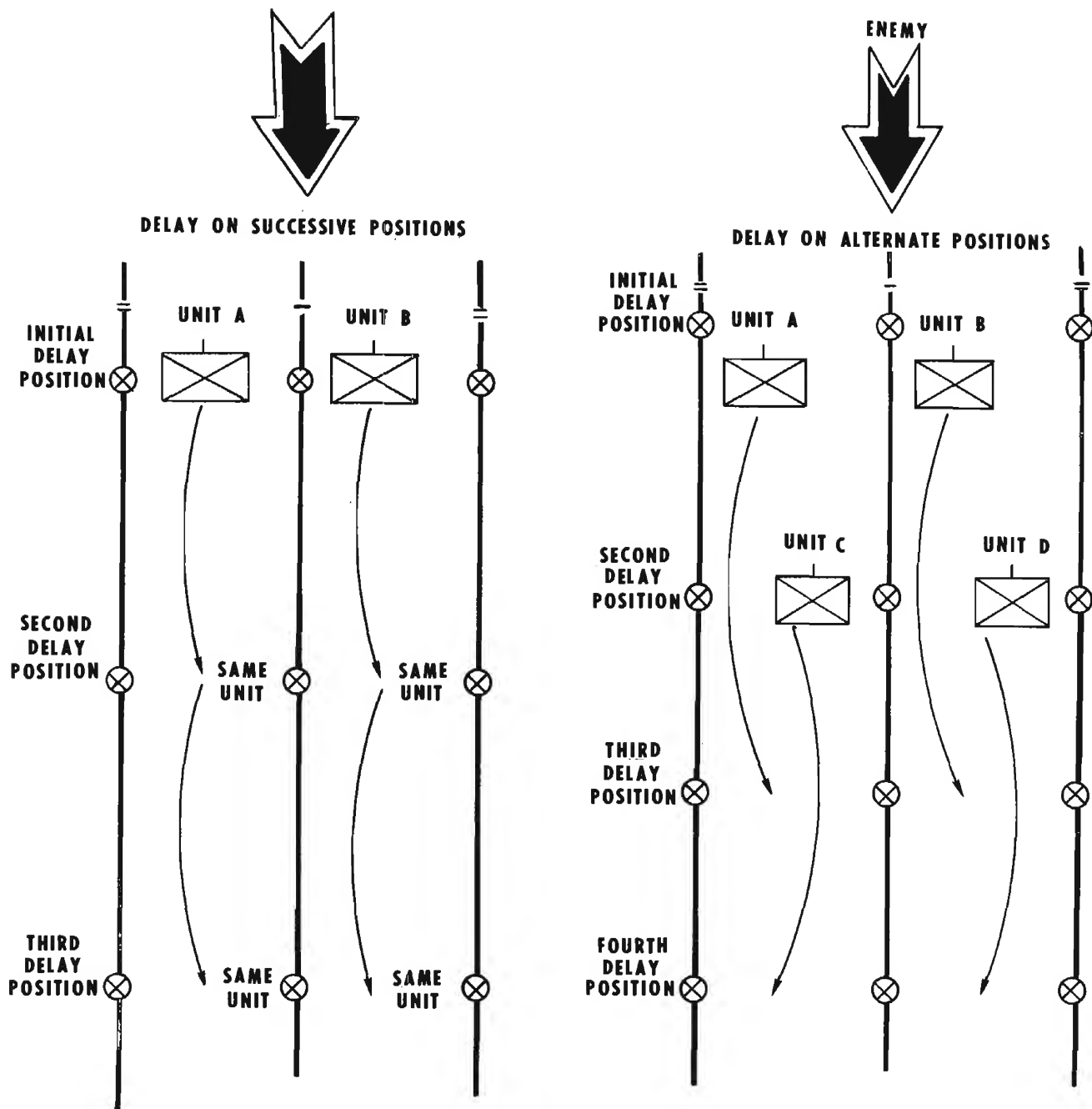


Figure 6-6. Methods of delay.

tive mobility of opposing forces, the enemy situation, and the required delay time as stated in the mission.

c. As part of a delaying action, the battalion may be required to make a passage of lines through a rearward position. In such a case, battalion plans should provide for liaison and coordination with the force through which the passage is to be accomplished.

6-14. Selection and Organization of Delaying Positions

a. After receiving the mission, the battalion commander studies and reconnoiters the area assigned for the delaying action. Normally, this will be a sector designated by extension of the rearward boundaries of the battalion through the next delaying position or to a covering force of a higher headquarters.

b. Delaying positions should be selected with the following characteristics:

(1) Long-range observation and fire, concealment, and cover.

(2) Covered and concealed routes of withdrawal for support installations.

(3) Obstacles to the front and flanks.

(4) A series of lateral ridges across the axis of enemy advance.

c. Distances between successive delaying positions should be far enough apart to force the enemy to regroup his forces and displace close support weapons to continue his attack from one position to the next. Open terrain will usually require greater distances between positions than will close or wooded terrain.

d. Each successive delaying position behind the initial position is reconnoitered in detail by the unit scheduled to organize and occupy it.

e. In a delaying action, the battalion will routinely be assigned a frontage considerably greater than that assigned in a sustained defense. In these cases, the battalion normally organizes positions by placing all companies forward while retaining a small reserve. Gaps between units on a delaying position are covered by patrols, observation posts, listening posts, and fires. In mechanized or airmobile operations, the requirement for a reserve is often fulfilled by an element not in contact. In addition, these units seldom delay on frontages narrow enough to permit delay on alternate positions.

f. If ordered to delay on a particular position for a specified period of time, the commander plans for a strong position with the intention of holding the terrain until the specified time. Maximum forces are normally allocated to the forward defense echelon and a relatively small reserve retained. The position will be characterized by shallow depth because of the forward distribution of forces and the limited capabilities of the small reserve.

g. In organizing the delaying position, the battalion reserve is located where it can limit penetrations and provide a force to cover the rearward movement of forward units. Whether it is placed in an assembly area or in a blocking position depends on its mobility, the width of the position, trafficability of the area, and adequacy of flank security.

h. Vehicles not needed on the delaying position, such as company team trains, are normally located to the rear of the next delay position to insure

continuous support during the critical period of the withdrawal. The commander must remain well forward to coordinate and control the actions of his unit.

6-15. Delay on Successive Positions

a. Delay on successive positions includes improvement and occupation of each natural delaying position. Units delay continuously on or between these positions. Terrain is never given up unnecessarily.

b. The delaying force holds its initial position until threatened with decisive engagement or until ordered to withdraw. The force then fights to the rear until covered by rearward units or until reaching the next delaying position. When operating independently or when no covering force has been provided by higher headquarters, the battalion may provide its own covering force. Maximum use is made of fires, obstacles, and demolitions to inflict damage on the enemy and delay him.

(1) The approaching enemy is taken under fire at long ranges by the security forces. As the enemy advances and comes within range of additional weapons, the volume of fire is increased. Every effort is made to inflict maximum casualties on the enemy, to disorganize him, and to force him to stop for reorganization and massing before he attempts a coordinated attack. Nuclear fires are used against lucrative targets.

(2) The battalion commander avoids decisive combat except when necessary to accomplish his mission. Each position occupied by a forward unit is defended until the enemy threatens close engagement or envelopment of the position. When the maximum delay has been achieved and it becomes apparent that further occupation of the position will result in the unit becoming closely engaged, the withdrawal to the next delay position begins. The withdrawal may begin in accordance with prearranged plans, or on order of the higher commander, or to prevent close engagement. Each withdrawal is coordinated with higher and adjacent units.

(3) The withdrawal from a delaying position is usually made under pressure, but there are times when the withdrawal is made according to plan and without enemy pressure. In this case, the battalion uses techniques described in paragraphs 6-4 and 6-5.

(4) The withdrawal under pressure may be a continuation of the effort to slow the enemy and gain more time, or the withdrawal may be made with the intention of disengaging the bulk of the command in order to occupy a new position to the

rear. If the intent is to disengage, the battalion uses techniques discussed in paragraph 6-3. Infantry-heavy forces normally employ these methods when confronted by an armor-heavy force.

(5) Continuous delay may be achieved between positions when mobility and the ability to fight on the move are equal or in favor of the delaying force.

(6) When the order to withdraw is received, a portion of the unit concerned displaces directly to the rear and occupies the next designated position. The remainder of the unit maintains contact with the enemy and continues to delay between the first position and the next rearward delaying position. Forces remaining in contact should contain as much tank strength as possible. These units, when threatened with close engagement, withdraw toward the next position. When the enemy has advanced to within range of rearward delaying positions, he is subjected to fire by the elements occupying these positions. These units provide overwatching fire for the delaying elements that have remained in contact. When forced back by the enemy, the forces which have remained in contact rejoin, as soon as possible, the rear delaying forces. When these consolidated forces are no longer able to hold the position without becoming closely engaged, the withdrawal procedure is repeated. These units continue delay forward of the next defensive position or until passage of lines of the covering force of the higher headquarters.

(7) During the course of the delay, designated personnel execute demolitions, close openings through minefields, and prepare other obstacles as time and materiel permit. Chemical agents and nuclear weapons may be used effectively to create barriers, to reinforce natural obstacles, and to restrict enemy use of terrain. All obstacles, both natural and artificial, are covered by fire.

c. The decision as to the exact time to withdraw from a position depends on many factors: the strength and composition of the attacking force; status of adjacent units; strength of the position; condition of the delaying force; and the amount of delay required by the mission. The withdrawal starts while the delaying force still has freedom of movement.

d. The authority to withdraw in a delaying action prior to a designated time or event remains with the commander initiating the action unless specifically delegated to a lower level. In any case, the next higher commander must be kept fully informed of the situation so that he can order ap-

propriate adjustments before units become too heavily engaged or their flanks are exposed. Continuous contact and liaison are maintained between battalions to insure coordination of the withdrawal and prevent encirclement and defeat by the enemy. A subordinate commander who is out of contact with higher and adjacent headquarters must do everything possible to carry out the mission as he understands it, and to reestablish communication and contact. If forced to withdraw before contact is regained, he informs the higher commander and coordinates with adjacent units as soon as possible.

e. Times of withdrawal from different delaying positions are varied so as not to establish rigid patterns. Movement at night or under conditions of reduced visibility is preferred, particularly when the enemy has air superiority or good observation.

6-16. Delay on Alternate Positions

a. When operating on a narrow front, the battalion may elect to delay on alternate positions. Employing this technique, the battalion normally is divided into two elements. The first element occupies the initial delaying position and engages the enemy. The second element occupies and improves the second delaying position.

b. Those units occupying the initial delaying position delay the enemy by employing the continuous delay technique. They delay on the initial delaying position and between it and the second delaying position. When the units arrive at the second delaying position, they withdraw through the units occupying that position; and move to the third delaying position and commence preparation and occupation of that position. Responsibility for delay of the enemy is assumed by the units on the second delaying position when the first element has withdrawn through their position. The delay procedure is then repeated, with each element being alternately in contact and responsible for effecting the required delay. When not in contact, each element is responsible for improving and occupying rearward positions and for providing overwatching fire for the withdrawal of the element in contact.

c. Battalion reserves normally are not retained for this type of delaying action. The uncommitted elements occupying alternate positions may be committed as reserves, if the need arises.

d. Delay on alternate positions has the advantage of providing more time for the improvement of delaying positions and the maintenance of materiel. It also provides troops with periods of rest

and relief from combat. However, this technique may render the battalion vulnerable to nuclear

fires because of the frequent rearward passage of lines required.

Section VI. RETIREMENT

6-17. General

a. A retirement is a retrograde operation in which a force avoids combat under existing conditions by conducting an orderly withdrawal according to its own plan and without pressure by enemy forces. A withdrawal from action becomes a retirement after the main force has disengaged from the enemy and march columns have been formed.

b. A battalion usually executes a retirement as part of a larger force. When it is on an independent mission, the battalion retires in compliance with specific instructions or after completing a specific mission. A retirement may be made to increase the distance between the defender and the enemy, to occupy more favorable terrain, to reduce combat service support distance, to conform to the dispositions of a larger command, or to permit employment of a unit in another sector.

c. In a retirement, the battalion is formed in a manner inverse to that employed in a movement to contact. Appropriate advance, flank, and rear security is provided; when contact with the enemy is possible, such as when a withdrawal has preceded the retirement, a strong rear guard is normally employed. If the enemy takes the battalion under fire from the rear, delaying tactics are employed by the rear guard so as to extend the distance

from the main body to beyond the range of enemy observation and fires.

d. The characteristics and execution of a retirement by air are generally the same as for an air movement behind friendly lines.

6-18. Conduct

a. A retirement is conducted in a formation appropriate to axes of movement and the expected dispositions of forces at the destination with such security as is dictated by the situation. If the movement is not covered or if a threat from enemy forces is considered possible, the battalion will be organized to meet the threat.

b. A retirement is most effectively accomplished on multiple routes. On most occasions after the battalion has passed through the covering force, road passage is on a priority basis and time of use will be dictated.

c. The commander may designate march objectives or require subordinate elements to do so based on his scheme of operation.

d. A retirement is best controlled by attaching smaller elements to major subordinate units to distribute forces over available road nets. Helicopters may be employed to assist in retirement, particularly when the operation is over difficult terrain.

CHAPTER 7

OTHER TACTICAL OPERATIONS

Section I. INTRODUCTION

7-1. General

a. The infantry battalion has the capability of conducting tactical operations under any condition of terrain and climate and in any intensity of warfare, though it may need augmentation with

special equipment and require specialized training.

b. Appendix A lists references which cover in detail the tactical operations discussed in this chapter.

Section II. OPERATIONS UNDER SPECIAL CONDITIONS

7-2. General

Battle under special conditions encompasses those operations in which the natural and manmade characteristics of the area, the nature of the operations, and the unique conditions under which the operations are conducted may require specially trained troops and special techniques, tactics, or materiel.

7-3. Jungle Operations

a. Jungles are areas of tropical rain forest and secondary growth, varying in locale from mountains to low-lying swampy plains. They are further characterized by a lack of industrial or cultural development and fully developed lines of communications. Jungle terrain and climate limit movement, observation, fields of fire, communications (radio range is greatly reduced), and control. Because of these limitations, the difficulties of jungle operations increase in proportion to the size of the force involved. Cover and concealment are excellent in this type of terrain and increase the possibility of achieving surprise. As a result, both the attacker and the defender commit large portions of available forces to security missions. Key terrain features in jungles include trails, navigable rivers, high ground, and communications centers. These features are difficult to identify because of inferior maps and limited visibility. The value of high ground may be reduced by restrictions on observation and fields of fire. An additional characteristic of jungle operations is the re-

duced capability to acquire targets. Heavy forests have characteristics similar to those of jungles.

b. In the offensive, security elements are essential to prevent surprise and to protect the command. In jungles, successful security force operations are dependent on proper training and conditioning of troops in off-trail movement. Airmobile and airborne units with air lines of supply facilitate jungle operations. Since the size of offensive operations is often limited by the capability to resupply the force, bases of supply are profitable targets for attack.

c. A critical aspect of defense in jungles is the communications network. To guard against surprise, the defense must be organized in depth, provide all-round defense, and contain well-organized security forces both for the defended area and for supply routes. Provision must be made for a mobile reserve. Chemical agents are particularly effective in jungle operations because of the nature of the terrain and atmospheric conditions. Defoliants may be used to improve observation and fields of fire. If nuclear weapons are employed, they can be used to create obstacles through blast effects or radiological contamination to enhance any natural obstacles that may be present.

d. Details on jungle operations are contained in FM 31-35.

7-4. Desert Operations

a. Deserts are semiarid and arid regions con-

taining a wide variety of soils in varying relief. Deserts have one common characteristic—lack of precipitation, which results in a limited water supply. However, flash floods occur in these regions. Because of the shortage of water, vegetation is scarce. In these areas, military operations rely on an adequate supply of water. Depending on the terrain relief and the trafficability of the soil, the lack of roads may or may not canalize operations. A greater freedom of movement exists in these regions than in other areas. Highly mobile forces may play a dominant role in operations in semiarid and arid regions. Freedom of maneuver and the vastness of these regions favor a fluid type of warfare characterized by dispersed formations on extended frontages with considerable depth. Additional characteristics include increased control problems, limited concealment, difficulty in determining location and maintaining direction, increased combat service support and equipment maintenance problems, and a requirement for specialized training and acclimation of all personnel. Ground reconnaissance forces, provided with armor and air defense means, and air reconnaissance elements are essential to prevent surprise. Air superiority is critical to successful desert operations.

b. During offensive operations in semiarid and arid regions, wide envelopments by mechanized forces are favored because of freedom of maneuver. Because of limited concealment, surprise must be attained by deception, communications security measures, and rapid movement. Periods of limited visibility should be exploited. Objectives for the attack include enemy troops, communications centers, supply bases, water sources, and key terrain features. The influence of climate and terrain in arid regions must be considered in planning the use of nuclear weapons. Likely nuclear targets include combat service support and air installations.

c. Defensive operations in desert regions emphasize mobility and flexibility. Provision should be made for direct fire weapons, a high degree of mobility, and adequate and secure communications. The organization of the defense should emphasize measures against air and armor attack.

d. Details on desert operations are contained in FM 31-25.

7-5. Mountain Operations

a. Mountains cause compartmentation of military operations. Their rugged characteristics limit road nets. Vegetation may vary from jungle to bare slopes. The weather is characterized by

rapid, extreme changes in temperature accompanied by mist, rain, or snow. Operations in mountains frequently require special equipment, training, and acclimation of personnel to altitude conditions. Mountainous terrain restricts mobility, reduces the effect of firepower, and makes communications and supply difficult. Key terrain features include heights that dominate lines of communications, mountain passes, roads, bridges, and railroads. Helicopters are valuable for moving equipment and personnel. Nuclear and chemical weapons can be used in mountain operations to restrict movement. Increased reliance must be placed on weapons having a high angle of fire and on armed aircraft.

b. In mountain operations, frontal attack of an enemy position is avoided whenever possible. Envelopment of enemy positions is facilitated by the crossing of difficult terrain with specially trained and organized forces. Air-transported forces are ideally suited for envelopments. Although centrally planned, the execution of attacks is normally decentralized because the capability for control is limited by terrain. The use of armor in the maneuver force normally is severely restricted. Direct fire capabilities of tanks are used when possible. Flanks, defiles, road nets, and communications centers must be secured. When nuclear weapons are available to support the attack, small-yield weapons may be favored to avoid blocking restricted avenues of approach.

c. Control of dominating terrain protecting road nets or passes normally is the key to the organization of a defense in mountainous areas. Security forces are required to prevent surprise, particularly of observation posts and patrols. Air reconnaissance is useful as a security means and permits observation of otherwise inaccessible terrain. Although counterattacks are difficult to plan and execute, they can be decisive if timed properly. Nuclear and chemical weapons can canalize the enemy or augment barrier plans.

d. Details on mountain operations are contained in FM 31-72.

7-6. Deep Snow and Extreme Cold Operations

a. The subarctic and arctic regions of the world constitute the largest areas of deep snow and extreme cold, but these conditions also exist in temperate zones and at high altitudes in all zones. The area characteristics where these conditions exist vary from forested to relatively barren regions, and they vary extensively in population. Additional characteristics of these areas are the

obstacles to movement created by thaws. Deep snow does not necessarily reduce the mobility of properly trained and equipped troops; in certain terrain, it may enhance their mobility.

b. The conduct of operations in arctic and sub-arctic regions requires the application of special techniques and equipment and will be affected by the following factors:

(1) During the winter, cold, snow, frozen waterways, and short periods of daylight prevail. These factors create problems, such as constant need for shelter and heat, increased dependence of tactical operations on combat service support, difficulties in the construction of field fortifications, difficulties in establishing and maintaining communications, and need for special winter clothing and equipment. Aircraft may use frozen lakes and rivers for landing areas.

(2) During the summer, the area is characterized by numerous and extensive swamps, lakes, and rivers; abundant insects; and, at times, continuous daylight. Special equipment, including boats and low ground-pressure tracked vehicles are needed. During these conditions, decreased mobility and increased vulnerability make special skills in movements a prime consideration.

(3) During the spring breakup, sudden thaws weaken the ice on waterways and make existing roads almost impassable. The ground thaws to a depth varying from a few inches to several feet, depending on the geographic location of the area. These factors hamper extensive overland movement.

(4) During the fall, ground and waterways frequently freeze before heavy snow falls. Before the snowfall, troops and vehicles can move cross-country with ease; however, in some cases early snowfall will insulate the ground and prevent its freezing until late in winter. This condition impedes cross-country mobility.

(5) During all seasons, the lack or scarcity of roads affects large-scale operations, particularly combat service support, which increases the requirement for engineer support and extensive use of air lines of communications. Limited map coverage normally affects navigation and control measures. Extensive forests and barren land complicate all types of operations.

c. Offensive and defensive operations in these areas are conducted as in other climates. However, operations in these areas will require greater combat service support—especially fuel, clothing, and shelter—and more time to accomplish even simple tasks. Since road-bound troops are extremely vulnerable to all types of enemy action,

the capability to move cross-country is a requirement for successful operations. The control of land routes of communication is vital in both offensive and defensive operations. Typical nuclear targets include combat service support installations and communications centers.

d. Details on northern operations are contained in FM 31-71.

7-7. Riverine Operations

a. Riverine operations are military operations conducted in areas with extensive inland waterways and inundated or swampy terrain.

b. A riverine area is a land environment characterized by water lines of communication with an extensive network of rivers, streams, canals, paddies, swamps, or muskeg extending over broad, level terrain parts of which may be inundated periodically or permanently. It may include sparsely populated swamps or forests, rivers and streams that have steep banks densely covered with tropical trees or bamboo, and relatively flat and open terrain. Ocean tides may affect riverine areas near the seashore or far inland. These areas may support a large agrarian population concentrated along the waterways, e.g., the rice-growing delta areas of Southeast Asia. Other riverine areas may be completely devoid of human habitation, e.g., the vast muskeg swamp areas of northern Asia and North America.

c. In developing areas where overland transportation capabilities are limited and surface water is abundant, inland waterways provide natural routes for transportation and communications and are logical centers of population. In riverine areas, water routes have strategic and tactical importance to military forces. They are particularly important to guerrilla forces in insurgency operations. Defeat of guerrillas in a riverine environment requires interdiction and control of waterways and adjacent land areas.

d. Riverine operations include all military activities designed to achieve or maintain territorial control of a riverine area by destroying hostile forces and restricting or eliminating hostile activities. A characteristic of riverine operations is the extensive use of joint watermobile forces, together with groundmobile and airmobile forces, in a predominantly land battle. Airmobile forces are particularly suited for use in blocking reserve or reaction roles in riverine operations because their movement is unrestricted by terrain. The basic nature of riverine operations is ground combat in

a land environment characterized by water lines of communications.

e. All means of mobility are somewhat restricted during riverine operations. Foot movement is least desirable for maneuvering forces since the frequent encounter with water obstacles exhausts troops and severely limits their rate of movement. Movement and maneuver normally require a combination of available means of mobility—foot, tracked vehicles, shallow-draft boats, helicopters, and fixed-wing aircraft. Water transportation may be used extensively to move troops and equipment. Exploiting the movement, fire support, and logistic capabilities of supporting Navy elements significantly enhances Army firepower and maneuver capabilities.

f. Tactics and techniques governing other ground operations apply in riverine areas. Special organizational and operational procedures are required when offensive ground forces, supported by naval ships and craft, operate directly from inland waterways.

g. Riverine operations are distinct from amphibious operations in that they require continual use of specialized watercraft, equipment, and techniques. However, certain principles and techniques of amphibious operations can be adapted to riverine operations.

h. The significant difference between riverine and conventional operations is that in riverine operations one or more elements of the force use existing waterways as the primary line of communications. The nature of riverine operations necessitates integrating the operations of ground forces, naval units, and supporting air elements. Coordination and cooperation among participants are mandatory. Their operations are interdependent; however, since the basic nature of riverine warfare is sustained ground combat, all forces must be considered a tactical entity responsive to the needs and requirements of the ground force.

i. For detailed doctrinal guidance on riverine operations, see FM 31-75 (Test) and FM 61-100.

7-8. Amphibious Operations

a. General.

(1) The division is normally the smallest organization of combined arms and services employed as the landing force echelon for conduct of amphibious assault landings and execution of a scheme of maneuver ashore.

(2) The battalion, when reinforced, may be organized and equipped to conduct amphibious op-

erations. The battalion participates in an amphibious operation as the Army component or an element of it and conducts its operations in accordance with the principles, doctrine, and procedures for unified and joint operations.

(3) The amphibious operation includes planning, embarkation of troops and equipment, rehearsals, movement to the objective area, and final assault of the objective. Assault includes final preparation of the objective and assault landing of troops and accompanying supplies and equipment.

b. *Types of Amphibious Operations.* The battalion may participate in any of the following types of amphibious operations:

(1) An amphibious assault to establish a landing force on a hostile shore to conduct further combat operations, to obtain a site for an advanced naval or air base, or to deny the use of an area or facilities to the enemy.

(2) An amphibious withdrawal for the purpose of redeployment or evacuation.

(3) An amphibious demonstration to deceive the enemy by a show of force, with the expectation of deluding the enemy into a course of action unfavorable to him.

(4) An amphibious raid involving a swift incursion into or a temporary occupancy of an objective, followed by a planned withdrawal. The purposes of such raids are to inflict loss or damage on the enemy, secure information, create a diversion, or capture or evacuate individuals and materiel.

c. *Organization for Embarkation and Command Afloat.* In amphibious operations, the division is organized as an embarkation group; the brigade will constitute an embarkation unit when part of the division, or an embarkation group when operating as an independent unit; and the battalion will always be designated as the landing team. Through this organization, the landing force commander exercises direction and control of both the planning and embarkation of the landing force. The organization for embarkation generally follows the tactical organization.

d. *Operations Ashore.* The infantry battalions, when appropriately reinforced, are the assault landing teams of the assault echelons of the executing force. The ground tactics during the operations ashore after the beachhead has been secured are substantially the same as for any ground operation.

e. *Combat Service Support.* The prime objective in planning for support is the timely and adequate

support of tactical operations to establish the landing force ashore. Combat service support operations ashore, normally handled by a shore party, are initially decentralized and controlled by assault landing team commanders, to include the battalion and brigade. These commanders are relieved of combat service support responsibilities as soon as possible. Assault units are reinforced to provide an interim combat service support capability until such time as this support can be provided by the next higher echelon.

f. Reference. For detailed doctrinal guidance on amphibious operations, see FM 5-144, FM 31-11, and FM 31-12.

7-9. Fortified Areas

a. A fortified area is characterized by numerous mutually supporting defensive works and localities organized in width and depth. Seldom will the fortified area be a single strongly organized locality. Fortified areas provide the defender with a high degree of protection and permit economy of force. Defensive works may consist of permanent-type fortifications and highly developed field fortifications located within an extensive barrier system. Additional characteristics of a fortified area include a strong outpost system, which, in itself, may be fortified; a well-developed road and signal net; and a highly mobile reserve centrally located and provided with an extensive network of covered approaches.

b. In offensive operations, enemy fortified areas are normally contained by minimum friendly forces, while the main force bypasses and continues the advance to more distant and decisive objectives. Action to reduce a fortified area may include a siege or an attack from the rear. CBR munitions facilitate the destruction and neutralization of fortified areas. The ability of chemical agents to penetrate structures and fortifications lessens the effectiveness of cover. Surface and subsurface nuclear bursts may be employed to create gaps in the fortified area or to isolate sections of the area. If nuclear weapons are used, they must be carefully coordinated with adjacent forces and evaluated as to possible interference with friendly maneuver.

c. A primary purpose for the defense of a fortified area is to involve the enemy in reducing fortified positions so that he dissipates his power and becomes vulnerable to counterattacking forces. Such a defense permits economy of force in forward areas, thus making available proportionately larger reserves for a counterattack. These reserves must be highly mobile and aggressively em-

ployed to insure the successful defense of a fortified area.

d. Details on combat in fortified areas are contained in FM 31-50.

7-10. Built-Up Areas

a. Built-up areas containing solid masonry or concrete and steel structures modified for defense purposes resemble fortified areas. These areas are conspicuous topographical features for which details are usually available. They offer cover and concealment for troops and weapons. Built-up areas are susceptible to neutralization or destruction by conventional or nuclear weapons. These areas can also be neutralized by biological or chemical munitions. Extensive subterranean systems may provide the defender with additional protection. Built-up areas reduced to rubble retain their defensive characteristics and restrict the use of mechanized forces. Fighting in built-up areas is characterized by close combat, limited fields of fire and observation, canalization of vehicular movement, and difficulty in control of troops. In employing chemical, biological, or nuclear weapons, the commander must coordinate with or at least notify adjacent or potentially affected friendly units. He must also consider the effect on the civilian population and make plans for the control and evacuation of noncombatants.

b. When practicable, built-up areas are bypassed and isolated. If they must be reduced, methods applicable to reduction of fortified areas are employed. Terrain dominating the approaches to a built-up area is secured to isolate the area. Mobile forces are used best in the enveloping role. Objectives within the built-up area are selected to divide the enemy defense. In a nuclear environment, the advantages gained through the use of nuclear weapons must be weighed against the creation of obstacles to the assault force.

c. The defense of a built-up area should be organized around key features whose retention preserves the integrity of the defense and permits the defender to move readily. Plans should provide for using subterranean systems in defending against nuclear attack. A built-up area is primarily an obstacle to the defender in counterattack operations. Consequently, consideration should be given to defending outside the built-up area. Defense of a built-up area must provide for a reserve to counter enemy action within the built-up area and on the dominating terrain outside the area.

d. Details on combat in built-up areas are contained in FM 31-50.

Section III. OPERATIONS AT RIVERLINES

7-11. General

a. Wide, unfordable rivers impose restrictions to movement and maneuver. They constitute obstacles to the attacker and form natural lines of resistance for the defender. An attack across an unfordable river requires tactical and technical preparations proportionate to the size and characteristics of the river and the relative strength of opposing forces. Other requirements for the attack of a riverline are special types of intelligence, specialized training, close coordination of all forces, crossing equipment, and adequate control means during the crossing. The timely use of airmobile and airborne forces facilitates river crossings and should be fully exploited. Maximum use is made of Army aviation in all stages of river-crossing operations.

b. As a result of the planning initiated during the advance to a river, the commander deploys forces in a manner that insures ready availability of essential crossing means when the river is reached. The advance to an unfordable river is made with speed on a broad front. Speed and violence in the attack, plus the confusion of battle, may create an opportunity to secure bridges before the enemy destroys them. The actual crossing of a river is part of the overall operation and not the primary objective. Supporting fires, particularly nuclear or chemical, may be used to secure a bridge intact by neutralizing the personnel defending the bridge. The advantage gained by capturing a bridge must be exploited. A bridgehead must be promptly established to secure or construct the bridge and permit crossing of the remainder of the command.

c. In a nuclear environment, the capability of the defender to employ nuclear weapons amplifies the requirement for multiple crossings on extended frontages. Continuous movement, without delay for buildup, is essential. Combat forces mounted in amphibious armored vehicles can materially speed the crossing and reduce the dependence on bridges.

d. Defense of a riverline is facilitated by the organization for defense that exploits the natural terrain features and the resources available. Only screening forces may be at the riverline when the defense is being conducted primarily by nuclear fires.

7-12. River Crossings

a. General.

(1) The purpose of a river crossing in an offensive operation is to move the attacking force

across a river or similar water obstacle as rapidly and efficiently as possible so that the unit may continue the attack to destroy the enemy or to seize an assigned objective which will protect the crossing of the remainder of the force. It is an operation differing from other actions primarily in the application of techniques. It usually requires specialized crossing equipment and trained personnel for nonmechanized units.

(2) Whenever possible, it is desirable that a crossing be accomplished on a broad front. However, suitable crossing sites are usually limited in number, thus resulting in some canalization of attacking forces. Plans must include provisions for rapid dispersion in both width and depth on the far bank objective (or enemy side) in order to avoid presenting a lucrative target for enemy fires. Airmobile forces may be employed in conjunction with a river crossing to seize key terrain beyond the far bank and isolate defending forces or to seize crossing areas or crossing sites.

b. Types of River Crossings.

(1) A crossing is termed *hasty* when it can be conducted as a continuation of an attack by forces which advance to the riverline and cross with minimum loss of momentum. A hasty crossing is characterized by speed, surprise, and a minimum concentration of personnel and equipment. It is the most desirable way to cross rivers.

(2) A crossing is termed *deliberate* when it is conducted under any of the following circumstances:

(a) As a resumption of the offensive after friendly forces have secured the near bank.

(b) When a hasty crossing is not feasible because of a lack of necessary equipment and personnel or because of the strength of enemy defenses.

(c) As a result of an unsuccessful hasty crossing.

(3) A deliberate crossing is characterized by more detailed preparation and planning at all levels, and buildup and employment of extensive specialized river-crossing means. A deliberate crossing also entails neutralization of enemy opposition in the zone of attack on the far bank.

c. Reconnaissance.

(1) Detailed information of the enemy situation and the nature of the river is essential. Since even small enemy forces can seriously interfere with a crossing, the commander executing the operation must have detailed knowledge of the location of any enemy forces that can place observed fire on the river. The location of enemy reserves

also assumes great importance because of the initial vulnerability of the crossing force to counter-attack, especially by armor and mechanized infantry forces. Reconnaissance is therefore directed toward locating these enemy units so that their effectiveness may be reduced by nuclear and/or nonnuclear fires before the time of crossing. Employing aircraft for radar, infrared, visual, and photographic reconnaissance is a fast means of obtaining information of the enemy and the area of operations. Such reconnaissance may reveal excellent blocking positions for airmobile forces beyond the far bank. All possible landing areas should be noted for possible use in a diversionary attack. Aerial reconnaissance should be kept to the minimum necessary to accomplish the mission, and aircraft so employed should not reveal the crossing site.

(2) Detailed information of the river is usually available from engineer and civilian sources. Nonetheless, the battalion may frequently be required to reconnoiter for its own crossing sites. The reconnaissance platoon is ideally suited for this role and should be used to verify information obtained from other sources about crossing sites. Night-vision devices facilitate night reconnaissance of both banks.

d. Planning the River Crossing. Considerations for planning a river crossing are essentially the same as those discussed in planning for any attack (chap 4). However, additional emphasis is required in certain areas.

(1) *General considerations.* Planning must provide for maximum dispersion, speed of operations, and the seizure of deep objectives to permit maneuver room and reinforcement of the bridgehead. If personnel carriers and aircraft are available in quantity, it may be possible to rapidly achieve all of these aims. If crossing means are limited to boats and footbridges, closer objectives may have to be seized. Because of a lack of mobility on the far bank, it may be necessary to seize and protect a limited bridgehead until bridges and ferries suitable for carrying heavy equipment can be constructed. Smoke may be used to deny the enemy observation and visual adjustment of fires on crossing areas. Deception measures, including use of smokescreens, may be used to confuse the enemy as to the exact crossing sites.

(2) *Crossing sites.* The following are desirable characteristics for a crossing site, regardless of the means of crossing:

(a) A far bank that is undefended or lightly held. However, a strongly held position may be neutralized or destroyed with fires to obtain a desirable crossing site.

(b) Terrain on both banks which facilitates rapid movement forward and early seizure of key terrain.

(c) A moderate river current (not exceeding 6.6 kmph for carriers).

(d) An unobstructed water area.

(e) Suitable banks for entry and exit.

(f) Sites suitable for rafts and bridges to carry tanks and other heavy equipment.

(g) A bend in the riverline toward the attacker in areas where nuclear weapons are not available to neutralize enemy river defenses.

(h) Dominating terrain which offers observation and fields of fire on the near bank superior to that of the far bank.

(i) A narrow crossing site to facilitate use of an armored-vehicle-launched bridge, if available.

(j) Concealed approaches, assembly areas, and attack positions.

(3) *Time of attack.* Night crossings are normally, preferred. The time of attack is selected, if possible, to allow units to move forward, cross the river, and reach the far bank under cover of darkness. Care should be taken that repeated use of dawn attacks does not compromise surprise. Exact times are selected after considering the mission, enemy defenses, terrain, and weather.

(4) *Deception.* With proper deception measures, assault units should be able to reach the far bank and launch their attack without major enemy interference. Feints and demonstrations are used to draw the enemy away from attack points and permit assault units to get a firm foothold on the far bank.

(5) *Fire support.* The fire support plan is designed to permit an uninterrupted movement across the river and beyond the far bank a sufficient distance to permit units to disperse. If authorized and required, nuclear weapons are used against the far bank to neutralize or destroy enemy forces that can interfere with the crossing. Enemy reserves that can interfere with the crossing are taken under fire. Smoke is planned against enemy observation posts. In the early stages of the attack, tanks may provide overwatching fire to facilitate the crossing. Supporting weapons displace across the river early enough to insure continuous support to the attacking units. Maximum use must be made of attached or supporting air defense units during the crossings in daylight.

(6) *Communication.* For communication considerations and actions of the communication officer in river-crossing operations, see FM 31-60.

(7) *Combat service support.* As soon as the situation permits, supplies and vehicles required

by the assault troops are delivered to the far side of the river. Essential POL, ammunition, and reconnaissance and command and control means should receive priority. Unit prescribed loads are transported across by carriers, boats, rafts, or Army aircraft. Company and battalion logistical vehicles must be carefully controlled on approaching the river and upon reaching the far bank. Supply and maintenance vehicles required in the immediate support of the companies are released to their respective units when the tactical situation permits. They are returned to battalion control as soon as resupply is completed. When Army aircraft are used to resupply units, care must be taken not to compromise unit tactical locations.

e. Conduct of River Crossing.

(1) Troops move forward (from positions well away from the near bank) to the near edge of the river, which is normally the LD in a deliberate crossing. In the hasty crossing, the LD may be back from the river; however, its location should allow uninterrupted movement to the river. It is desirable that assault mechanized infantry rifle companies be able to cross a platoon simultaneously. Every effort should be made to maintain a continuous flow of personnel with no appreciable stopping or congestion on the near bank. However, this may not be possible when boats are used. In such a case, attack positions (where boats are picked up) are selected by the battalion commander, and positions on the near bank from which boat teams can deploy and launch their boats are designated. Units do not attempt extensive reorganization on reaching the far bank, but move rapidly away from the river to eliminate remaining enemy and to disperse. As the attack progresses, reorganization is continuous until, eventually, units are re-formed in the formation necessary to continue the attack. The attack then proceeds as described in chapter 4.

(2) The brigade reserves remain on the near bank until sufficient ground has been gained to preclude massing on the far bank. They are prepared to move to the far bank quickly if enemy countermeasures threaten the success of the operation. The battalion seldom retains a reserve on the near bank.

(3) All available crossing means are used to achieve maximum speed in the crossing and the subsequent exploitation of the bridgehead, and to reduce the criticality of any one crossing means. Army aircraft, particularly helicopters, are capable of moving fire support units, reserves, and supplies to speed the buildup on the far bank.

7-13. Defense of a Riverline

a. Wide, unfordable rivers impose restrictions on movement and maneuver. They constitute obstacles to the attacker and form natural lines of resistance for the defender. An attack across an unfordable river requires tactical and technical preparations proportionate to the size and characteristic of the river and the relative strength of opposing forces. In defense of a riverline, special attention is given to the nature of the river being defended, terrain contiguous to the river, and capabilities of the enemy for a crossing of the river. The defense, regardless of type, is organized on terrain which controls the river or approaches to it. This makes it possible to stall the enemy's attack astride the river and to destroy him by fire and maneuver. When defending a riverline, the commander should expect the attacker to attempt to move rapidly on a broad front and, without pause, to attempt crossings at multiple sites using amphibious vehicles, expedient crossing means, and helicopters. A riverline may be defended employing one of two methods:

(1) Defending the riverline *employing forces on the near bank.*

(2) Defending the riverline *employing forces on the first suitable terrain away from the river.*

b. The FEBA prescribed by the higher commander may indicate which method is to be employed. If the general trace of the FEBA provides sufficient latitude, the commander selects the method of defending the riverline based on the following tactical considerations:

(1) Conditions favoring a defense on the near bank:

(a) The river is an effective obstacle.

(b) Flat trajectory fires can be placed on possible crossing sites.

(c) Observation is equal or superior to that of the enemy.

(d) The river runs generally parallel to the front of the defense position.

(e) Adequate cover and concealment exists for the defender.

(2) The absence of one or more of the conditions listed in (1) above may require the defense to be conducted on the first suitable terrain away from the river.

c. In defending a riverline employing forces on the near bank, the defender organizes to prevent a crossing by the enemy or to destroy him by counterattack while he is astride the river. In applying this method the defense may be organized with either *minimum* or *maximum* forces in the forward area. (See fig. 7-1 and 7-2.)

(1) When the defense is organized on the

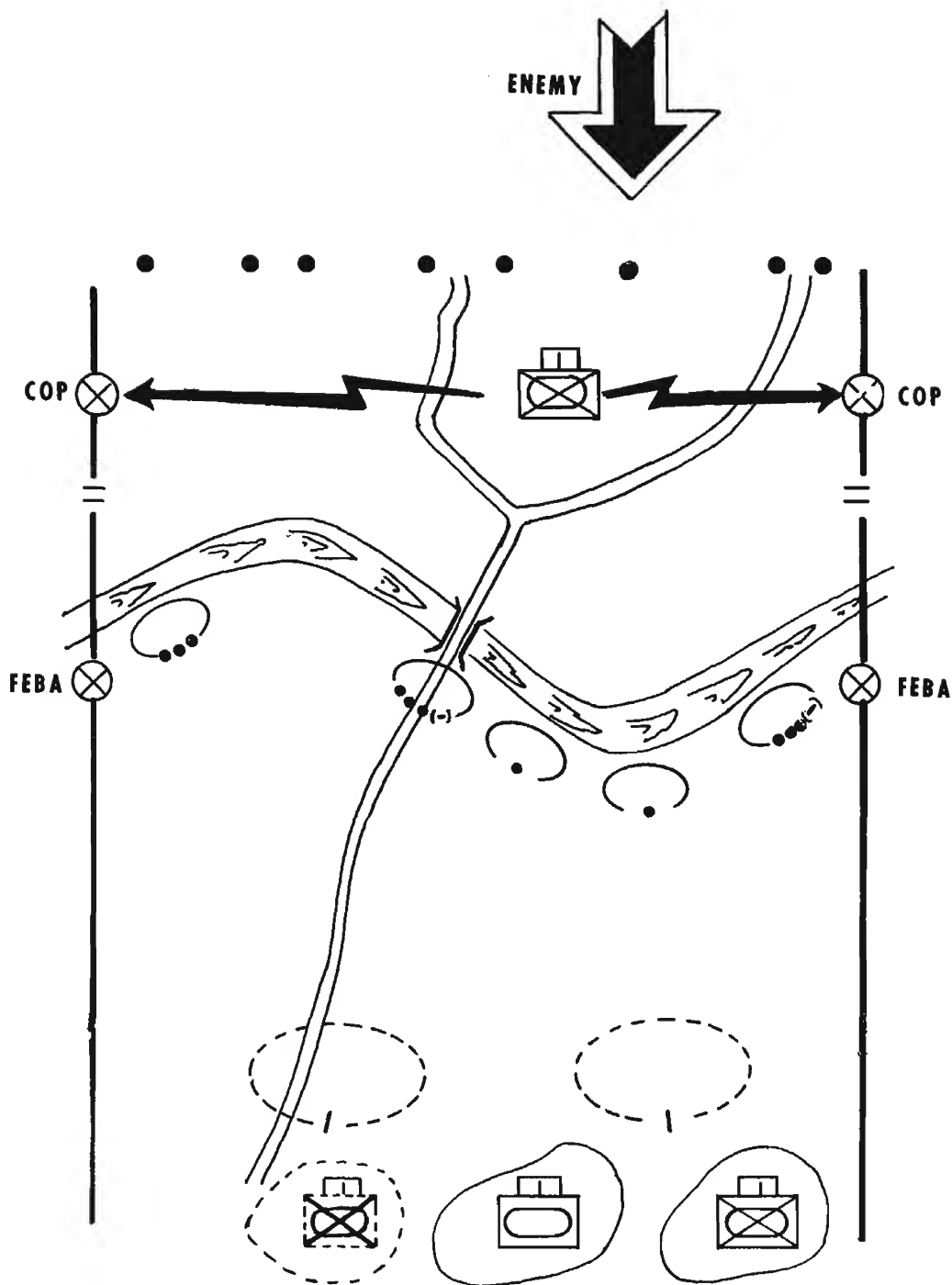


Figure 7-1. Defense of a riverline, minimum forces forward.

near bank with minimum forces forward, the commander employs the forward forces to control the crossing sites, facilitating the employment of the counterattack force to strike the enemy while he is astride the river.

(2) When the defense is organized on the near bank with maximum forces forward, it is organized as an area defense.

(3) The following factors should be consid-

ered by the commander in determining whether to defend on the near bank with minimum or maximum forces forward:

(a) Width of the defense sector (wide sector favors minimum forces forward).

(b) Crossing sites available to the enemy (numerous crossing sites favor minimum forces forward).

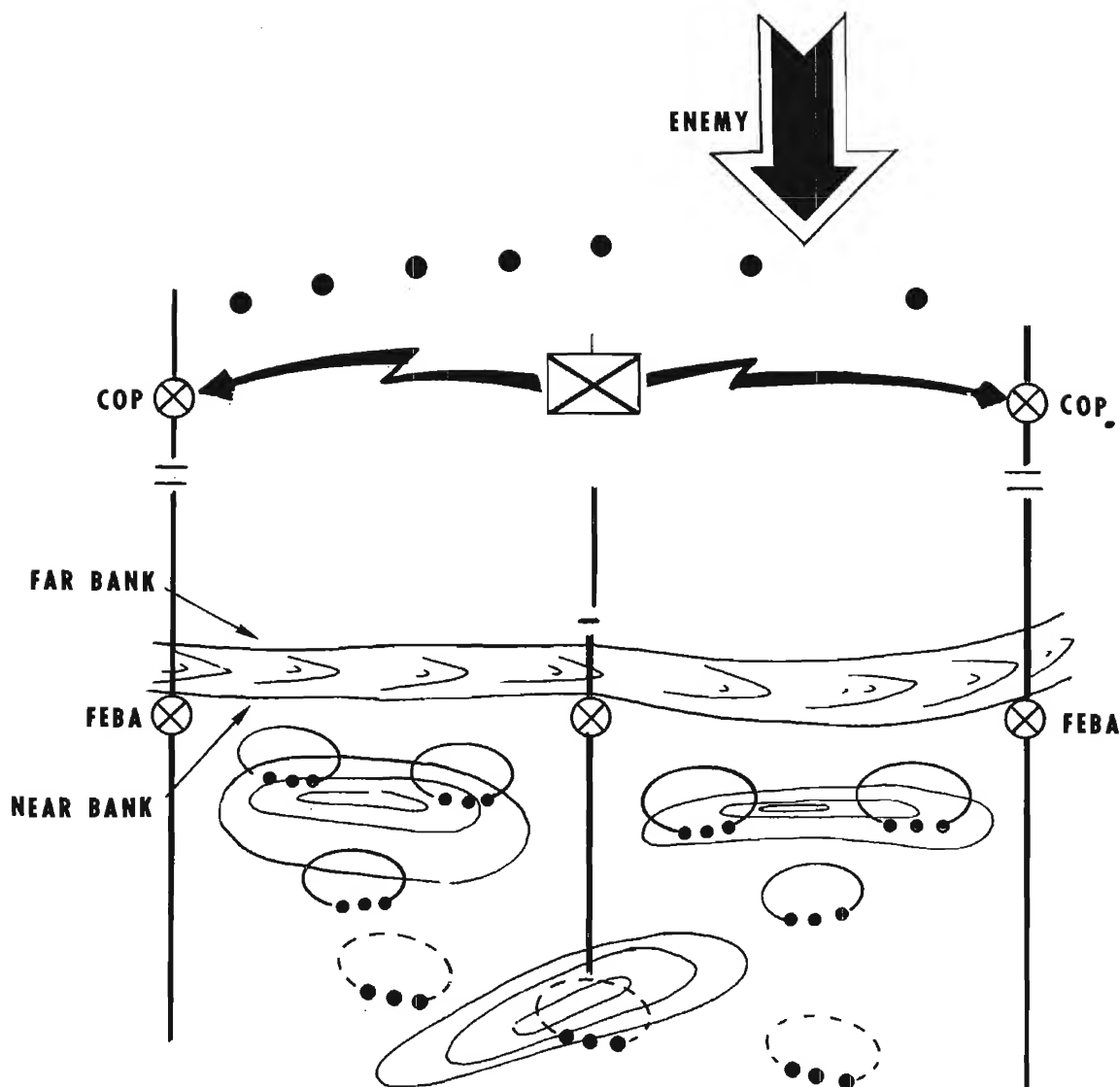


Figure 7-2. Defense of a riverline, maximum forces forward.

(c) Defensive characteristics of the near bank and trafficability within the battle area.

(d) Enemy air and nuclear capability.

(e) Enemy river-crossing capability.

(f) Mobility of the defender.

(g) Availability of tanks to the defender.

(h) Capability of the enemy to employ screening smoke to provide concealment during the crossing.

(4) The battalion is the lowest echelon at which the selection of one of the two techniques is made.

d. The other method is to organize an area defense on the first suitable terrain away from the river (fig. 7-3). In this method, the defender seeks to control the approaches from the river and canalize the enemy, stalling his attack astride the

river and destroying hostile elements on the near bank. Under certain conditions, spoiling attacks between the FEBA and the river may be conducted to good advantage.

e. After the battalion commander has determined which type of defense his unit will conduct (maximum or minimum strength on the riverline), he follows the same techniques used in planning other types of defensive actions. Special consideration is given to the following:

(1) *Analysis of defensive sector.*

(a) Trafficability and slope of the river bottom and banks, and current velocity must be weighed against the enemy's capability to use armored vehicles capable of swimming or fording. Strong defenses are established at the better crossing sites to deny their use and force the at-

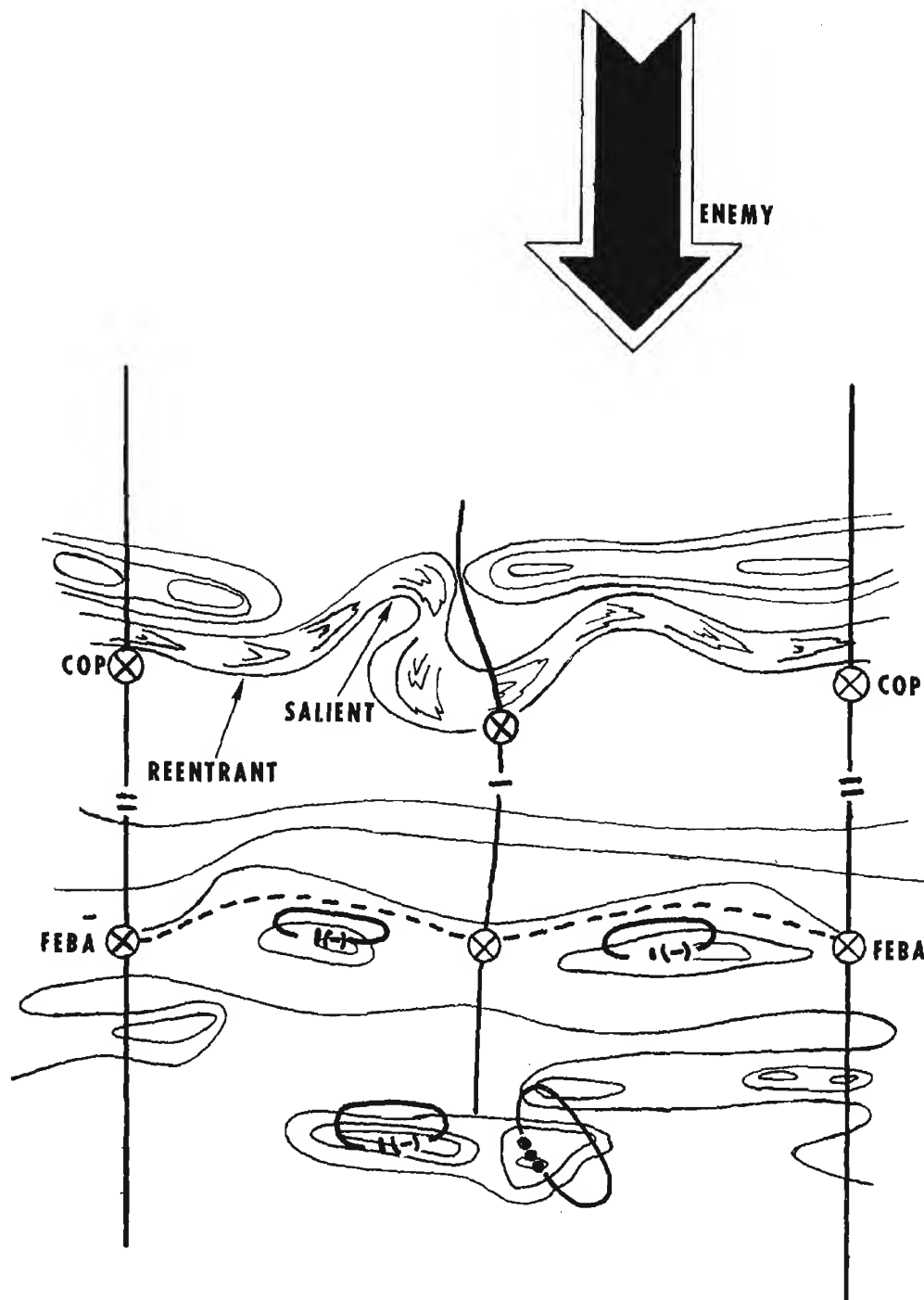


Figure 7-3. Defense of a riverline, away from the near bank.

tacker to use disadvantageous sites. Crossing sites for armored vehicles should be mined or destroyed by cratering or construction of other barriers. Bridges are prepared for demolition and destroyed at the appropriate time. Extreme care must be taken not to allow bridges to fall into enemy hands intact.

(b) Multichannel rivers are usually defended at the channel providing the greatest ob-

stacle. The effect of having an obstacle within the defensive position must be considered.

(c) When minimum forces are located on the riverline, blocking positions usually are organized on the first good defensive terrain away from the river.

(2) *Frontages and depth.*

(a) Frontages and depth are influenced by the effectiveness of the water obstacle. An effec-

tive obstacle makes possible the assignment of wider frontages to units above platoon level. If minimum forces are employed on the FEBA, greater depth is allowed for movement and dispersion of the relatively large reserve. To adequately cover increased frontages and depth, good mobility is required.

(b) Frontages are assigned to forward units according to the natural defensive strength of the obstacle in their assigned sector and the relative importance of each defense area. Unoccupied portions may be controlled by a combination of weapons fires, surveillance devices, minefields, and security forces. Forces are located on terrain controlling likely crossing areas.

(3) *Reserve.* When minimum force is employed on the riverline, the battalion commander retains a highly mobile reserve in blocking positions or assembly areas away from the river. When maximum force is on the riverline, the size and location of the reserve is similar to that of a normal area defense.

(4) *Location and control of security elements.*

(a) Security forces in defense of a riverline should be disposed in strength on the far bank so as to cover approaches to the river. Emphasis is placed on detecting enemy concentration areas for a river-crossing operation, and preventing enemy reconnaissance of the river and approaches. The battalion reconnaissance platoon may be used for this purpose.

(b) Brigade may direct that a COP be established. The battalion may also establish local security. When the FEBA is located well back from the near bank, the COP is usually located at the near bank. Positions for coverage of the most likely crossing sites are established. Aggressive patrolling is executed on the far bank and contact is maintained with any security elements of higher echelons.

(c) With the COP on the far side of the river, security is improved; however, the COP must withdraw across the obstacle. Plans must include alternate means for security forces to cross in case bridges or fords are destroyed prematurely. In such cases, airmobile capabilities must be exploited.

(5) *Other security measures.* The battalion commander establishes positive measures to de-

stroy all bridges, fords, and boats within his defense area at the proper time based on higher authority. Authority and responsibility to destroy a bridge or ford upon threat of capture must be clear and specific. The execution of demolitions and final closing of mined areas and other obstacles must be closely coordinated with the withdrawal of security forces across the river. (For the command responsibilities, techniques, and procedures for destruction of bridges, see para 6-5.) Rear area security must receive added emphasis since the enemy may attempt to overcome the obstacle with parachute or airlanded units.

(6) *Antitank measures.* Special measures are planned against enemy amphibious armored vehicles. Construction of obstacles and minefields on both banks and in fords, and planning of antitank fires are priority requirements.

(7) *Fire support planning.* Fires are planned to interdict possible assembly areas for enemy troops and crossing equipment, approaches to the river, and crossing sites. Priority of fires is assigned to control the best crossing sites. Planning should provide for use of airburst fires on the enemy as he crosses the river.

(8) *Dispersion.* In the planning and conduct of the defense of a riverline, special measures must be taken to avoid the presentation of massed forces to enemy fire. Reserve elements should remain dispersed until any enemy penetration is most vulnerable, usually when he has major forces astride the obstacle. Once a counterattack is launched and the enemy force destroyed, the reserve is again dispersed and the defensive positions of the forward defense forces reestablished.

(9) *Rehearsal.* If time and security permit, the counterattack planned by the reserve should be rehearsed. This is particularly vital in the defense when minimum force is on the riverline, and exact timing will be critical to the success of the counterattack.

f. A riverline defense is conducted in essentially the same manner as any other defense; however, the battalion reserve may not occupy blocking positions to be more readily available to execute a counterattack or spoiling attack. After a counterattack or spoiling attack, the reserve force normally returns to its blocking positions or assembly areas.

Section IV. RAIDS, FEINTS, DEMONSTRATIONS, AND RUSES

7-14. Raids

a. A raid is an attack within an enemy position to accomplish a specific mission, with no intention

of holding the invaded territory. A raid may be executed within or beyond supporting distance of the parent unit, in daylight or in darkness. When

the area to be raided is beyond supporting distance, the raiding force may organize and operate as an independent task force. Raids may be accomplished by dismounted, mechanized, airborne, or airmobile units.

b. Raids normally are conducted to capture prisoners, gain specific information of the enemy, or to capture or destroy specific enemy materiel or installations. They are also used frequently to exploit nuclear strikes forward of the friendly battle area. In this type operation, the raiding force normally sweeps into the area to eliminate remaining enemy personnel. Attack planning considerations for raids are similar to those described in chapter 4.

c. Raids may be conducted by any size force. It is often desirable for the force to be highly mobile and to be composed of all arms. A task force with the battalion as its nucleus is particularly suitable for a major raid. A battalion task force may constitute the raiding force for a brigade or division.

d. Since permanent retention of terrain is not contemplated, a detailed plan of withdrawal for the raiding force is mandatory. Easily recognized rallying points are designated for use in case unforeseen situations do not permit the original plan of withdrawal to be executed.

e. See FM 57-35 for use of airmobile forces in a raid.

7-15. Feints

a. *General.* A feint is a shallow, limited-objective attack to mislead the enemy and draw him away from the main attack. It may vary in size from a small raid to a sizable supporting attack. A feint may affect the ultimate development of the enemy force. It is most effective when the enemy has a large reserve, when there are several feasible courses of action open to the attacker, and when the force employed is of adequate strength and composition to cause the desired enemy reaction. Planning and conduct of feints are similar to those of other offensive operations.

b. *Purpose.* A feint is designed to cause the enemy to react in a manner predetermined by the attacker. The attacker may desire the enemy to react physically, or the attacker may desire to con-

fuse the enemy and cause him to reevaluate the attacker's capabilities and intentions. The following are examples of enemy reactions which draw his defense away from the main attack:

(1) Employ reserve improperly.

(2) Attract supporting fire away from the main attack.

(3) Reveal defensive fire plans.

(4) Frequent raids and feints may confuse the enemy and so accustom him to this type of activity that little or no action may be taken when the main attack is actually launched.

7-16. Demonstrations

a. *General.* A demonstration is an operation designed to deceive the enemy by a show of force in an area where a decision is not being sought. It differs from a feint in that there is no advance against the enemy. The basic considerations and techniques of planning feints also apply to demonstrations.

b. *Characteristics.* Fewer troops are required for a demonstration than for a feint, and the force involved need not necessarily be balanced. Withdrawal of demonstrating forces and their subsequent employment elsewhere are possible. Demonstrating forces can make extensive use of fires, smoke, sonic devices, and decoy equipment. A demonstration lacks the realism of a feint and is more susceptible to identification by the enemy as a deception. It is not a positive means of causing the enemy to react.

c. *Use.* Demonstrations are particularly effective when the enemy and demonstrating forces are separated by an obstacle. They can be used to good advantage to depict the buildup for operations such as river crossings or attack of fortified areas.

7-17. Ruses

Ruses are tricks to achieve deception. They are used at all levels. The use of a few vehicles towing chains or brush to produce dust clouds representing large movements and the movement of a few tanks throughout the area at night are examples of ruses. Ruses such as the use of loudspeakers in the forward area may divert the enemy's attention from other activities.

Section V. RELIEF OF COMBAT UNITS

7-18. Relief

a. *General.*

(1) When tactical operations are prolonged,

periodic relief of committed units normally is required to maintain combat effectiveness; to re-equip, retrain, or rehearse for specialized opera-

tions; or to conserve fighting power. Such reliefs are accomplished by a relief in place, or a passage of lines, (to include a withdrawal through a rearward position). The entire battalion may participate in a relief operation, or it may direct and control reliefs of subordinate units.

(2) The congestion inherent in relief operations requires that every precaution be taken to reduce vulnerability to enemy attack during critical periods. Close coordination of plans and cooperation between units executing the relief are essential.

b. Basic Considerations. The following details are common to, and require coordination in, all types of relief:

(1) *Plans.* Preparation of detailed plans for the relief and their close coordination is required of and between all elements of the relieving and the relieved units. The relieving unit must become thoroughly familiar with the existing defensive plans including fire plans, barrier plans, counter-attack plans, patrol plans, and other pertinent plans. Liaison personnel are exchanged to facilitate coordination and exchange of information. The unit being relieved may on occasion leave liaison personnel with the relieving unit.

(2) *Transfer of command.* The time or circumstances under which the relieving unit commander will assume responsibility for the mission of the element being relieved may be established by brigade or higher authority, or in the absence of such orders, the time of transfer may be agreed upon by the unit commanders conducting the relief.

(3) *Reconnaissance.* Arrangements must be made for a thorough reconnaissance by commanders and staff officers of the relieving unit. Reconnaissance should be conducted in daylight if possible and should include existing defensive installations; weapon positions; relief routes; entrucking, detrucking, and turnaround points; and administrative installations.

(4) *Movement control.* Joint arrangements between the relieving and the relieved units must be made for the control of units moving into and out of the area. Coordination should include—

(a) Routes to be used and priorities for their use.

(b) Responsibility for traffic control.

(c) Location of entrucking, detrucking, and turnaround points.

(d) Provision for guides.

(5) *Intelligence.* The unit being relieved is responsible to transfer to the relieving unit all intelligence and information available on the enemy and the area of operations.

(6) *Fire support.* Supporting artillery and weapons of the unit being relieved or passed through may fire in support of the unit relieving or executing the passage. Fire support elements of the unit making the passage or relieving in place may take positions in rear of the unit being passed through or being relieved. In either case, all fires delivered in the zone are controlled through the headquarters of the commander responsible for the zone.

(7) *Transfer of responsibility for minefields.* Written reports transferring responsibility for minefields are executed between the commander of the unit responsible for the field and the relieving unit commander at the time the unit is relieved. The report of transfer is signed by both the relieved and relieving commanders and includes a certificate stating that the relieving unit commander has been shown, on the ground, or otherwise informed of the known location of all mines within the zone of responsibility and that he assumes full responsibility for such mines. The report of transfer is forwarded to the next higher commander having authority over both the relieved and relieving unit commanders. The transfer includes local protective minefields as well as minefields directed by higher headquarters.

c. Planning the Relief. A relief in place may be conducted to continue the attack or defense. In both cases, there exists a continuity of mission. A relief in place to continue the defense is normally executed on a man-for-man, weapon-for-weapon basis. The commander of the relieving unit makes his dispositions conform to the plan of the relieved commander, making changes only after completion of the relief. The relief in place to continue the attack is normally conducted on an area basis. The relieving commander has the responsibility to plan for the attack and also to defend the area. The relieving commander may change the disposition of forces in order to facilitate his attack. The order directing the relief must specify, as a minimum, the time for commencing and completing the relief and priorities for use of routes involved. It may also specify the sequence of relief. In addition to the items for coordination in all reliefs, the following items receive emphasis in planning for a relief in place:

(1) *Sequence of relief.* A relief in place is executed in stages in order to insure the most effective defense during the relief. Normally when minimum forces are employed on the FEBA, the relief is conducted from rear to front; and when maximum forces are employed on the FEBA, the relief is conducted from front to rear. This allows

the relief to be conducted in the shortest possible time and reduces vulnerability to enemy attack during the conduct of the relief. Additionally, in determining the sequence of the relief, commanders should consider—

(a) Strength and condition of elements involved in the relief.

(b) The subsequent mission of the relieved and relieving units.

(c) The enemy situation and the capability of the enemy to detect and react against the relief.

(d) Characteristics of the area of operation.

(e) The need to vary the pattern of relief.

(2) *Secrecy in relief.* To maintain secrecy, reconnaissance by relieving-unit personnel is carefully regulated. Vehicles and aircraft of the unit being relieved are used by the relieving unit. Relief operations are conducted during periods of reduced visibility whenever possible. The tactical situation usually dictates whether the relief is made during daylight or darkness. Reliefs of battalion size in daytime are avoided, if possible. Smoke may be used locally to conceal a daylight relief operation. The relief is usually conducted as rapidly as possible, consistent with secrecy and control. In some instances where security is paramount, it may be conducted over a period of more than one night. During the relief, normal activities including supporting fires, radio traffic, vehicular traffic, radar employment, and other activities are continued. The outgoing battalion furnishes security and surveillance during the conduct of the relief. Mention of the relief is not made in the clear over electrical means of communication. Local counterintelligence measures are employed to the maximum to prevent disclosure of relief operations.

(3) *Security.* Mechanized infantry normally accomplishes the relief on foot. It dismounts far enough to the rear to avoid compromising the relief. Carriers normally do not move forward until completion of the relief by the dismounted troops. Outgoing mechanized units may exfiltrate carriers prior to the relief, providing such action will not compromise the relief; otherwise, carriers of the outgoing units move when the relief is completed. Similar consideration should be given to relieving attached tanks after infantry forces have completed the relief.

(4) *Method of relief.* When the determination as to sequence of relief has been made, the commander then selects the method of relief for forward units based on the capability of the enemy to detect and react against the relief, characteristics of the area of operation, time available for accom-

plishing the relief, and the acceptable degree of concentration of force. Alternatives are:

(a) Complete the relief of the first of two forward companies before relief of the second company begins when two companies are employed forward.

(b) Relieve the two flank companies simultaneously, followed by the center company, or relieve the center company followed by simultaneous relief of the flank companies when three companies are employed forward.

(c) Relieve all forward companies simultaneously.

(5) *Exchange of equipment.* Because of the difficulty in accurately laying weapons (especially at night), commanders of the incoming and outgoing units may desire to exchange crew-served weapons which cannot be easily moved, or when necessary to insure the effective delivery of fires. As a minimum alternative, machinegun tripods and mortar baseplates should be exchanged. The exchange is on a weapon-for-weapon basis with the authority for the exchange included in the relief order of the next higher commander. Outgoing units leave on position excess supplies and equipment difficult to move, such as ammunition and field fortification materials.

(6) *Communication.* For communication considerations and actions of the communication officer in the relief, see appendix F.

(7) *Transportation.* In order to make maximum use of available transportation and to minimize traffic, the relieved and relieving units plan for common use of nonorganic transportation.

(8) *Attachments.* To simplify control and reduce the requirement for guides, commanders of outgoing units usually attach elements of their antitank platoons and attached tank units to incoming rifle companies. After completion of the relief, these units may revert to battalion control.

(9) *Coordination.* The incoming commander should coordinate with adjacent and supporting units prior to the relief or as soon thereafter as practicable.

d. Conduct of the Relief.

(1) Since both the relieved or relieving forces are vulnerable to enemy attack during the conduct of the relief operation, maximum fire support from both outgoing and incoming units should be readily available to neutralize enemy reaction in the event the operation is discovered.

(2) To limit confusion inherent in a relief and to avoid excessive massing, elements of the outgoing battalion leave the area as soon as they are relieved and control is established.

(3) Battalion assembly areas are not usually designated. Company assembly areas are separated as much as possible to minimize vulnerability to enemy fires. Delays within assembly areas are avoided by precise planning, timing, and execution of the operation.

e. Command During the Relief. During the relief, commanders at each echelon remain together at the command post or observation post of the outgoing unit. The incoming unit commander usually assumes responsibility for the defense when the majority of his unit is in position and communication and control are established, or at a time previously designated by the next higher commander. In the absence of orders from the next higher commander, the exact time of exchange of responsibility is agreed upon by the commanders concerned. When command passes, the incoming commander assumes control of all units of the outgoing unit which have not yet been relieved. If an attack occurs before the incoming commander assumes responsibility for the defense, he assists the outgoing commander with all means available to him. In this event, elements of the incoming unit in the battalion area come under the operational control of the outgoing unit. Changes in organization of the defense desired by the incoming unit commander are not initiated until after the change of responsibility.

f. Considerations Affecting the Choice of Type Relief Prior to Attack.

(1) *Relief in place.* If sufficient time is available, the relief in place prior to an attack should be employed when:

(a) The unit being relieved is required in another area.

(b) The enemy capability is such that the troop density involved in a passage of lines constitutes an excessive risk.

(c) The attacker requires more time to gain knowledge of the terrain and the enemy situation.

(2) *Passage of lines.* The passage of lines is preferred when:

(a) There is insufficient time for a relief in place.

(b) More flexibility is desired in the selection of the formation for the attack.

(c) Massed fire support of both units in a particular area is desired.

(d) A major change in the direction of attack is planned.

(e) Continuous offensive pressure against the enemy is desired.

(f) Speed can be achieved.

7-19. Passage of Lines

a. General. A passage of lines may be conducted to maintain the momentum of the attack with fresh troops, to exploit an enemy weakness with reserve forces, to change the direction of attack, to initiate an offensive from a stabilized situation, or to withdraw through occupied rearward defensive positions. Coordination between units is essential for a rapid, secure, and controlled passage. Troop concentrations are minimized to avoid offering profitable targets to the enemy.

(1) *Selection of areas of passage.* When possible, the areas selected for the actual passage should be unoccupied areas between elements of the unit being passed through, or the areas (gaps) on its flanks. Units making the passage move to the area of passage and into the attack without occupying forward assembly areas. Careful march planning is required to insure that attacking units reach the LD without the requirement for assembly areas. However, if a nuclear preparation in support of the passage is to be utilized, attacking units may be required to stop and take necessary protective measures.

(2) *Transfer of responsibility.* Responsibility is transferred to the commander of the unit executing the passage at a mutually agreed upon time unless the time has been specified by higher authority. Normally, in a passage in connection with a subsequent offensive operation, the commander of the unit making the passage of lines assumes responsibility for the zone of action at, or prior to, the time of attack. If responsibility for the zone is transferred prior to initiation of the attack, the commander of the unit making the passage is given operational control of those units being passed through that remain in contact at the time of the transfer.

(3) *Support.* The unit in contact provides all possible assistance to the unit executing the passage of lines. Assistance normally includes clearance of lanes through friendly minefields, provision of guides, fire support, use of existing communication facilities, and other combat support within its capabilities. In addition to combat support, the unit in contact may assist the attacking unit by providing certain combat service support, including evacuation of casualties and prisoners of war and control of civilians and traffic.

b. Passage of Tank and Mechanized Infantry Units. When tank or mechanized infantry units make a passage of lines, more detailed coordination between units is required because of the length of tank and mechanized columns, noise and confusion created by armored vehicles, sensitivity

of armor to terrain, and possible congestion in the zone. Special emphasis is placed on the following coordination measures:

(1) Areas and routes to be used by tank and mechanized units.

(2) Clearing and marking lanes through friendly minefields to permit rapid passage of tanks and carriers. This is normally accomplished by the unit in contact.

(3) Provisions of guides by units in contact, down to and including platoons.

c. Withdrawal through a Rearward Position.

(1) A withdrawal through a rearward position is an operation in which a unit withdraws through a unit to the rear occupying a defensive position. Essentially, this movement is a passage of lines to the rear. Because of the problems inherent in such a maneuver and the conditions under which it is normally executed, the withdrawal through a rearward position is usually more difficult than a forward passage of lines.

(2) The battalion may execute such a withdrawal after it has completed a GOP mission or a covering force mission, or during a delaying action. In planning for the operation, the following items are given special emphasis:

(a) Fire support for withdrawing forces.

(b) Passage through obstacles and barriers.

(c) Command and control.

(d) Communication.

(e) Traffic control.

(f) Liaison and exchange of information and plans.

(g) Recognition.

(3) Specific arrangements must be made for assumption of responsibility for the sector from the withdrawing force. The commander on the defensive and/or delaying position will assume responsibility at a place or time designated or mutually agreed upon by the two commanders and approved by higher authority. Desirably, this change of responsibility should occur when the withdrawing battalion completes passage of a specific location (designated phase line) or at a specific hour. Coordination and control are facilitated if boundaries for both the defending and the withdrawing unit coincide.

(4) To insure an effective passage, a plan for mutual recognition during day or night is developed. This may include use of radio, visual, or other signals. Arrangements should also be made for communication between defending and withdrawing units.

(5) Plans are made for providing the withdrawing force fire support from the defensive po-

sition. In the event minefields and other obstacles have been placed in front of the defensive position, the withdrawing force must be informed of their location and of any gaps or lanes through them. Once the withdrawing force has passed through the lanes, they are closed by the defending force based on plans made in advance.

(6) To reduce the troop density or congestion occasioned by the rearward passage, the battalion commander normally uses multiple routes with required traffic control measures to speed the movement. Points of passage are reduced to the minimum consistent with the requirement for expeditious passage. The withdrawing unit is afforded priority on roads, provided this arrangement does not jeopardize the operation of the unit being passed through. The commander of the withdrawing unit is responsible for informing the defending commander when passage through the defensive position has been completed.

(7) Assembly areas to be employed by withdrawing units should be located far enough to the rear to avoid interference with movement or maneuver of the defending unit and should be occupied only as long as necessary to regain control of the withdrawing element. This is particularly applicable to mechanized units.

7-20. Linkup Operations

a. A linkup involves the juncture of two ground forces. It may be conducted as a part of the following operations: airborne or airmobile operations; an attack to assist the breakout, or the breakout of an encircled force; or an attack to join a force of infiltrators. The battalion may participate in linkup operations as a part of a larger force, or it may conduct a linkup operation within its own resources.

b. Planning for linkup must insure close coordination of the efforts of the linkup force and the force with which linkup is to be made. Plans are prepared and coordinated in advance and include the following:

(1) The command relationship of forces involved in a linkup operation must be established prior to the operation to clearly delineate responsibilities. The stationary force may be attached to the linkup force or the linkup force may be attached to the stationary force. Both forces may come or remain under control of a higher commander. The headquarters directing the linkup establishes the command relationship.

(2) Command and staff liaison is accomplished before and during the operation. Information and plans are exchanged early in the planning phase. As linkup becomes imminent, additional liaison personnel may be exchanged to insure coor-

dination of fires and any changes in tactical plans; Army aviation may be used to facilitate this exchange.

(3) A system of mutual recognition is devised to preclude the possibility of friendly troops firing on one another. This system may include pyrotechnics, arm bands, panels, vehicle markings, lights of a distinctive pattern and/or color, colored smoke, infrared and radar devices, arm-and-hand signals, and use of a password.

(4) Communication plans are coordinated to include establishment of nets and exchange of call signs, authentication procedures, radio frequencies, SOI, SSI, and radio equipment if required.

(5) Schemes of maneuver are exchanged to include current and planned location of friendly elements. Control measures are established in advance to include use of linkup points, boundaries, axes of advance, and delineation of objectives if appropriate. Linkup points are selected at easily recognizable points at which physical contact between the two forces is expected to occur. Sufficient linkup points are established to accommodate possible changes in the scheme of maneuver. Checkpoints and phase lines may also be used to determine by reference the location of one or both forces to facilitate control.

(6) Coordination of fires is accomplished by exchange of fire support plans and by use of control measures such as no-fire lines, fire coordination lines, and fire support coordination lines.

(7) Assistance from the stationary force is provided to the linkup force to facilitate linkup and reduce the time of passage through positions of the stationary force. Obstacles are removed (where appropriate) immediately prior to linkup, and lanes through barriers are opened. Guides should be provided by the stationary force to assist in traffic control through and within the defense position. The linkup force must be fully informed of the location of all minefields, and other obstacles in front of and within the stationary force defense sector.

(8) Actions to be taken following linkup are established in advance. The linkup force may reinforce or assume the defense of the area, conduct a coordinated attack with the stationary force, or pass through or around the stationary force and continue the attack.

(9) Alternate plans are considered in view of the possibility that the linkup force may be unable to reach the stationary force in the prescribed time. For such a contingency, plans should provide for fire support, close air support, and aerial resupply for the stationary force.

c. Combat service support requirements may be greater than those for an ordinary attack if the linkup force must anticipate and provide for the needs of the stationary force. Planning should provide for the possible use of aviation to perform such missions as resupply and air movement of patients.

Section VI. BREAKOUT OPERATIONS

7-21. General

a. A unit is considered encircled when it is surrounded by an enemy force which has cut all ground routes of evacuation and reinforcement. In a fluid situation when forces are widely dispersed, commanders must plan for and accept encirclement in accomplishing their mission; however, when the mission requires, the battalion breaks out of the encirclement either alone or with the assistance of a linkup force (fig 7-4). On occasion, an encircled battalion may be extracted by air.

b. Unity of command for an encircled force consisting of two or more units is mandatory. Unified command must be established early to permit the defense to be properly coordinated.

c. A high standard of discipline is essential and must be upheld by all officers and NCO. The commander of an encircled force must insure complete control of the force under his command. Force of character, as in any critical situation, acquires great significance in sustaining the will to fight

and may eventually determine the outcome of the battle against a superior force.

7-22. Preparation and Planning

a. A breakout from encirclement is one of the most difficult of military operations. Unless the encircled force has explicit orders to defend in place or is so weak that it must rely on relief from the outside, the decision should be made to break out and the operation executed before the enemy is able to establish an organized containment. The need for quick decisionmaking, however, should not lead the commander to attempt to execute a breakout without adequate planning.

b. Timely intelligence is required for development of a sound breakout plan. The plan should include consideration of the following:

(1) *Area for the attack.* The attack should be launched against enemy weakness in a direction which will insure linkup with friendly forces in the shortest possible time. The direction may be indicated by designating objectives and an axis of

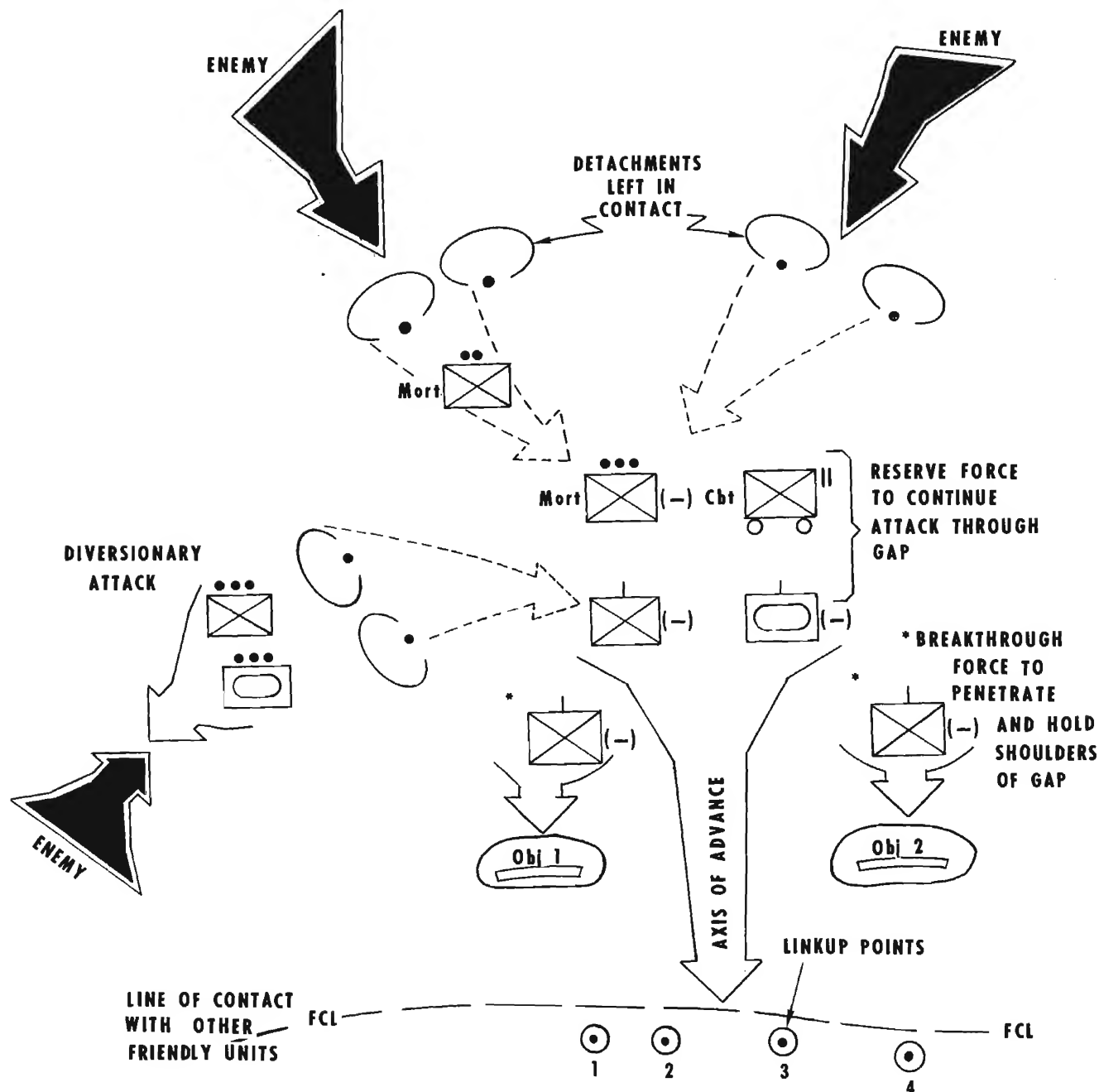


Figure 7-4. Battalion in breakout attack.

advance. Objectives are assigned to insure penetration of the encircling force and preservation of the gap created.

(2) *Time of attack.* Since deception and secrecy are essential to a successful breakout, the commander may decide to attack during darkness or other periods of limited visibility. The effectiveness of enemy and friendly air must be considered in selecting the time for the breakout. When the enemy can gain and maintain local air superiority, it may be necessary to break out at night or during weather which reduces the effectiveness of enemy air. On the other hand, if friendly air can

gain and maintain local air superiority, it may be desirable to conduct the operation when visibility is good. A daylight breakout may also be preferable if smoke can be used to limit enemy observation.

(3) *Organization of the breakout.* An encircled force is usually organized into four distinct tactical groups for the breakout: the breakthrough force, supporting units, a reserve, and detachments left in contact (DLIC).

(a) The breakthrough force, which may vary in size from one-third to two-thirds of the total encircled force, is assigned the mission of

penetrating the enemy encircling position, widening the gap, and holding the shoulders of the gap until all other encircled forces can move through. After the penetration phase has been completed and all other encircled forces have passed through the penetrated area, the breakthrough force is employed as a rear guard.

(b) Supporting units such as artillery and logistical units displace on order.

(c) The reserve may be assigned the mission of assisting the breakthrough or executing counterattacks or diversionary attacks. This force usually is employed to maintain the momentum of the attack once the penetration has been made. When freedom of action is gained, this force may become the advance guard for further movement.

(d) The DLIC cover the withdrawal of other forces from the perimeter. The detachments withdraw on order after all other units have cleared the perimeter. After passing through the penetrated area, they rejoin their parent units.

(4) *Deception.* An effective deception plan is required for a successful breakout. Effective deception may be achieved by employing feints, diversionary attacks, or demonstrations. These measures are designed to deceive the enemy as to the location of the main attack. Mobile weapons and tanks are ideally suited for these operations. After the bulk of the enemy force has been diverted, mobile weapons and tanks can move rapidly to support the main attack.

(5) *Concentration of forces.* Prior to the breakout, there must be a gradual change of emphasis from the defense of the perimeter to the formation of a strong breakout force. As the situation permits, every element that can be spared from the perimeter must be assembled for employment in the breakout.

(6) *Communication.* Since secrecy is essential to the success of this type operation, messengers should be used extensively within the encircled unit. Radio and wire may be used but must be closely guarded. No mention of the breakout operations should be transmitted in clear text over any means of communication. The normal pattern of radio traffic should be maintained until the breakthrough force has initiated its attack.

(7) *Logistics.*

(a) Plans should be made to relieve personnel of all equipment and supplies not essential for the fighting during the breakout. Equipment that cannot be evacuated is destroyed, except for medical items.

(b) If the force does not have adequate supplies to support the breakout, plans are made for air resupply of critical items.

(c) One of the major logistical problems is that of evacuating casualties. Helicopters and other aircraft are used to the maximum for this purpose. The consideration given to casualties has a profound effect upon the morale of encircled troops. The slightest indication that wounded personnel are to be left behind can be expected to reduce the fighting spirit of all troops. Commanders must make every possible effort to bring casualties out of the encirclement along with the fighting forces if they cannot be evacuated by air.

(8) *Additional fire support.* Tactical air strikes and/or artillery fires may assist in creating a gap in enemy positions and should be considered in the breakout plan. Simultaneous fires on several points of the encirclement will aid in deception as well as inflict additional enemy casualties.

7-23. Conduct

a. Since secrecy and security are primary considerations in conducting a breakout operation, a strict sequence of events for the operation must be developed and disseminated to all participating units. Elements on the perimeter which are to participate in the breakout as a part of the main breakthrough force or as a part of the reserve are released from their defense mission and assembled with their respective tactical groups at the latest practicable time before the breakout attack is to be initiated.

b. A diversionary attack, if used, must be carefully planned and vigorously executed if it is to divert the enemy from the breakout area. In the diversionary attack, the deceptive measures taken, the assault power and supporting fires used, and the vigor with which the attack is executed must be adequate to convince the enemy it is a genuine breakout attempt.

c. The main attack crosses the LD as soon as the diversionary attack has diverted the bulk of the enemy force. The breakthrough force, supported by all available fire and close air support, effects the penetration, widens the gap, and holds the shoulders of the penetration. The reserve force then passes through the gap and continues the attack to the assigned objective. Supporting units displace on order to provide close, continuous support to the attacking echelon. The DLIC withdraw on order and follow the reserve force through the gap. When all encircled forces have passed through the gap, the breakthrough force withdraws, prepared to fight a rear guard action. Once outside the encircled area, the attack is continued to link up with other friendly units. During this

phase of the operation, the breakout force assumes a formation which insures maximum speed of movement and security to the front, flanks, and rear.

d. In some instances, an encircled unit may find it feasible to break out from the encirclement by use of infiltration. Small groups of personnel may use infiltration techniques and capitalize on stealth and surprise to return to friendly lines. Addition-

ally, an infiltration force may move through enemy lines and subsequently attack the enemy encircling force to assist the main body in the breakout.

7-24. Relief in Conjunction With Breakout

An attack by a relief force, either conventional or paramilitary, enhances the probability of success of the breakout attack by an encircled force.

Section VII. AIRBORNE OPERATIONS

7-25. General

a. This section deals with the special considerations involved in the entry of an infantry battalion into combat by airlift of other services and includes air landed as well as parachute operations. Tactics for airmobile operations, less entry techniques, are generally applicable to airborne operations. For a more complete discussion of airborne operations, see FM 100-5, FM 61-100, and FM 57-1.

b. An airborne operation involves the movement or delivery of combat forces and their combat support and combat service support elements into an objective area to accomplish an assigned mission. The term "airborne operation" as used in this section describes a joint operation involving primarily Air Force and Army units. Administrative air movements are not considered airborne operations.

c. Airborne combat operations are classified as short or long duration.

(1) Short duration operations are conducted with minimum combat service support in the objective area with units utilizing primarily accompanying supplies. The operation is terminated with the early relief, withdrawal, or relief for subsequent operations.

(2) Long duration operations involve a substantial buildup of troops, supplies, and equipment by air lines of communications.

d. Ground tactical operations of airborne units are similar to operations of other units except:

(1) An airborne force usually has limited artillery and heavy equipment and little or no armor within the objective area. Reinforcing fires, not normally available within the objective area are provided by Air Force, naval gun fire, and Army attack and aerial field artillery helicopters.

(2) An airborne force must expect to fight in all directions.

(3) The requirement for protecting perim-

eter-type landing areas and the lack of vehicles may restrict the flexibility of operations.

(4) Adverse weather (primarily low visibility and high winds) may restrict the conduct of airborne operations.

(5) The force's limited ground mobility and antitank capability increase its vulnerability to enemy armor.

(6) The force is particularly vulnerable to airstrikes and other type fires during flight, landing, and assembly.

e. In airborne operations, every effort and appropriate resource must be used to achieve and maintain air superiority en route to, and over, the marshaling and objective areas. When it is impossible to insure air superiority, but the operation must be launched, various techniques may be used to gain surprise and reduce the enemy's ability to interfere. These techniques include, but are not limited to, flying at low levels, using multiple flight columns, operating during periods of limited visibility, and using various deception measures such as tactical ruses, feints, and electronic countermeasures.

f. Airborne operations are planned to achieve tactical surprise and are completed in the shortest practicable time. The rapidity of the attack reduces the vulnerability of the airborne force to enemy counteraction, including use of nuclear weapons. An airborne assault usually is made in light-defended areas, facilitating initial tactical surprise. The lack of enemy defense may be due to the prevailing enemy dispositions or may be created by friendly supporting fires, including nuclear strikes, in the area.

g. Unity of command throughout the operation is essential.

7-26. Concept of Employment

a. Airborne forces normally are not committed on missions that can be performed as economically or expeditiously by other combat forces.

b. Airborne operations can be conducted during daylight or darkness or under other conditions of reduced visibility, and can be conducted in areas occupied by well organized enemy combat forces when preceded by neutralizing preassault air or artillery bombardment.

c. Parachute elements normally make the initial assault with air landed units following into protected landing areas. If required, airborne operations can be conducted entirely by parachute, or air landed units can conduct assault operations without having been preceded by parachute assault if the landing area is undefended, lightly defended, or neutralized.

d. Airborne forces are particularly vulnerable to counterattack, especially during assembly of the committed units, by armor or mechanized forces.

e. Normally airborne operations are initiated by an assault phase followed by a defensive phase, then an offensive or withdrawal phase.

7-27. Basic Considerations

a. *General.* Units must maintain maximum readiness to take part in an airborne assault on short notice. Operations of battalion-size can normally be launched within 24 hours after receipt of the order, provided the unit is fully trained and prepared to perform such operations. A nonairborne battalion, without experience or training in air landings, may require from 3 to 5 days of training to perform an efficient air movement.

b. *Security.* Only those personnel who have a need to know are informed of a forthcoming airborne operation until such time as all personnel are within and restricted to the marshaling area. Training and rehearsals, though oriented toward the operations, are characterized by their routine appearance. Practice seal-in alerts are conducted periodically to accustom the local populace to conditions that will exist during marshaling.

c. *Communication.*

(1) Special communication problems arise during the assault phase of an airborne operation. Because of dispersion of the units on landing, speed of action, and distances involved, communication is relatively difficult to establish. Radio is the principal means of communication used.

(2) Communication plans are integrated and coordinated at all levels. These plans provide for communication between the battalion and the following, as appropriate:

(a) Airlift control element (ALCE) during the marshaling phase and in the objective area.

(b) Artillery, naval, and air units providing fire support.

(c) Combat service support elements.

(d) Forces with a common or coordinated mission, including linkup forces.

d. *Training and Rehearsals.*

(1) *Training.* The training objective of the battalion is to attain maximum efficiency in airborne operations as well as other ground operations. Training involves unilateral and joint training in aircraft loading techniques, air movement, and logistical and administrative procedures. Unit training emphasizes tactical operations on the ground, speed, and precision in loading aircraft, techniques of assault landing, and assembly after landing. Individuals are trained in their primary ground role. Additionally, they must be proficient in flight discipline, loading and unloading of aircraft, and parachute techniques. A unit SOP may reduce the preparation time.

(2) *Rehearsals.* Rehearsals closely tied in with other training are conducted whenever possible. When feasible, rehearsals approximate proposed operations. Rehearsals should include, as appropriate:

- (a) Loading and unloading of aircraft.
- (b) Communication procedures.
- (c) Assembly and control after landing.
- (d) Execution of the tactical plan.
- (e) Linkup operations.
- (f) Logistical considerations.

e. *Timing the Operation.*

(1) The battalion commander may recommend or select the time of landing in certain instances when the battalion or its elements conduct an independent operation. In selecting the time for landing, the commander considers the enemy dispositions and capabilities; the influence of predicted weather and visibility, both day and night; the availability of and plan for fire support.

(2) The battalion may land at dawn to take advantage of darkness during the air movement and reorganize and attack in daylight, or it may land at dusk to facilitate delivery and reorganization, then attack during darkness. Airborne operations conducted during daylight present fewer command and control problems; they can be more complex in scope and can be better assisted by close air support.

(3) The battalion may conduct an assault at night or under other conditions of reduced visibility to gain tactical surprise or to reduce the effectiveness of enemy fire. However, operations under these conditions have the following disadvantages: accurate delivery of units to their drop

zones is more difficult; air and artillery support is less effective; and reorganization on the ground is more difficult and time-consuming.

(4) Timing airborne operations with other operations requires consideration of the missions of the airborne force, depth of the operation, and capabilities and limitations of fire support in the objective area.

7-28. Missions for the Battalion

A battalion or elements thereof may be assigned the following missions in an airborne operation:

a. Attack to Destroy or Capture Enemy Forces or Installations, or to Seize Key Terrain. These missions may be assigned to all or part of a battalion to be accomplished during the assault phase or after an objective area has been occupied. Airborne assaults may be conducted in conjunction with other ground operations.

b. Expansion of, or Exploitation from, an Objective Area. The battalion may reinforce initial assault forces and attack to expand the objective area or exploit from the objective area.

c. Airborne Raid. See paragraph 7-14.

d. Area Interdiction. When the brigade conducts an area interdiction to prevent or hinder enemy operations in a specified area, it may assign the battalion responsibility for a part of the area. The battalion operates over a wide area, destroying key enemy installations and facilities.

e. Blocking Enemy Routes of Movement. An operation to block a route of enemy withdrawal or reinforcement is conducted frequently in conjunction with nuclear or nonnuclear strikes and/or ground attacks. Usually, units of company-size or smaller occupy key terrain from which enemy forces can be stopped or delayed. The operation is coordinated with ground attacks to insure early linkup and to prevent defeat of the blocking force, or provision is made for withdrawing the force by ground movement or extracting it by air.

f. Security and Reconnaissance. Flank guard, reconnaissance in force, covering force, or other security missions may be performed by all or part of the battalion.

g. Operations as Part of Other Forces. The brigade commander may detach elements of the battalion to reinforce other battalions or to constitute a task force operating under brigade control.

7-29. Plans and Orders From Brigade

a. The brigade commander issues a warning order early in his planning so that subordinate unit commanders can make their plans and preparations concurrently.

The warning order for an airborne operation may include special security measures and advance information of the number and type of aircraft allocated to the battalion.

b. Brigade plans and orders give the battalion commander the following additional information peculiar to an airborne operation:

(1) Assigned assault objectives and a sector of responsibility.

(2) Location and assignment of drop zones and/or landing areas.

(3) Requirements for special reports not covered by SOP.

(4) Coordinating instructions for initiating the ground phases of the operation.

(5) Data for the air movement plan to include location of loading areas and/or departure sites, allocation of aircraft, composition of aircraft serials, flight route diagrams, and the time for loading, takeoff, and arrival at the destination. Data for priority of movement, extraction, and logistical support are also included.

(6) Data on marshaling, including special security measures to insure secrecy.

(7) Details of air-sea rescue, when applicable.

(8) Details of time and place of arrival and the use of troops and equipment in the followup echelon, when applicable.

(9) Organization of, and instructions to, the rear echelon.

(10) Supply and evacuation procedures, including special measures for air resupply and air medical evacuation.

7-30. Plans and Orders From Battalion

When detailed plans and orders are transmitted to subordinate units, they normally include information contained in paragraph 7-29 as applicable to company level. In addition, the following information is provided, as appropriate:

a. Changes to SOP loading plans.

b. The plan for reorganization after landing, including the location of company assembly areas, use of assembly aids, reports, security measures, and the method of collecting stragglers. Appropriate parts of the reorganization plan may be included in the SOP.

c. Detailed guidance on preparation of equipment for aerial delivery.

7-31. Liaison

On receiving a warning order for an airborne operation, the battalion exchanges liaison officers, as appropriate, with the following:

- a. Other Army elements of the force.
- b. Supporting troop-carrier elements.
- c. Supporting naval force.
- d. Supporting tactical Air Force.
- e. Linkup force.

7-32. Planning for Airborne Operations

a. General.

(1) Upon receipt of plans or orders from the brigade, the battalion commander initiates planning for the operation. The battalion commander and his staff may participate in the development of the brigade plans. It is desirable that attached or supporting elements also be included in planning. This insures close coordination and makes it possible for the battalion commander to reduce his planning time.

(2) The extent of the battalion's involvement in planning depends upon the mission and the size and scope of the operation. When operating independently, the battalion is involved in planning to a greater degree than when operating as a part of the brigade.

(3) Plans for an airborne operation must be simple and flexible. All leaders must be prepared to overcome unforeseen difficulties and exploit opportunities that may arise during the conduct of the operation. To attain flexibility, the planner:

(a) Insures that the success of the operation does not depend on the arrival of any one air serial or tactical unit.

(b) Develops simple landing and assembly SOP.

(c) Uses landmarks that are easy to locate and identify from the air.

(d) Prepares alternate plans to allow for adverse weather, misdelivery of units, communication failure, and similar unforeseen happenings.

(e) Makes allowance for operational delays in takeoffs and landings.

(f) Maintains tactical integrity of units in loading plans whenever possible.

(g) Prepares a simple plan for the disposition of troops and equipment at departure areas.

(h) Incorporates consideration of phase-back in planning in the event of a shortage of aircraft or sudden insertion of a high-priority unit in the air movement plan.

b. *Reconnaissance.* In planning for airborne operations, the battalion relies on higher headquarters for information of the enemy and the terrain. Key personnel may participate in reconnaissance from the air of the terrain over which flight routes are planned, and of the objective area if the

situation permits. Information obtained on the reconnaissance is similar to that obtained in reconnaissance on the ground; however, stress is placed on gaining information of landing areas and drop zones available, assembly areas, and obstacles in the drop zones and/or landing areas and the objective area.

c. Planning Sequence.

(1) Detailed planning for an airborne operation adheres to the principles applicable to ground tactical operations; consideration is given to the technical problems peculiar to airborne operations. Plans are developed by selecting the objective first and continuing the planning in inverse sequence to the marshaling area, as indicated below:

(a) *Ground tactics in the objective area.* Ground tactical plans include missions and objectives, location of airhead line, combat outpost, other reconnaissance and security forces, task organization, boundaries, and location of the reserve(s). Because of the decentralization of initial operations, special attention is given to assembly and reorganization of the assault forces.

(b) *Landing in the objective area.* Landing plans include sequence and method of delivery into selected drop zones, but are not normally formalized except as a worksheet to aid planners.

(c) *Air movement.* Air movement plans include aircraft loads, assignment of units to serials and columns, loading and departure sites, flight routes, and other measures for air movement. This plan must support the ground tactical plan.

(d) *Marshaling.* Marshaling plans control the movement of troops, equipment, and supplies from the marshaling area to loading sites.

(2) Although reference is made to four separate plans, at battalion level all of the plans are incorporated in a *single* operations plan. As an example, the air movement plan is normally an annex to the operations order supported by the following appendixes as required: air movement table, flight route diagram, and air loading table. Although planning follows the sequence indicated above, the plans are interrelated and developed concurrently. Combat service support planning begins with ground tactical planning and continues throughout the planning sequence.

d. *Ground Tactical Plan.* The ground tactical plan includes the assault plan and plans for defense, linkup, withdrawal, subsequent operations, and displacement as appropriate. Assault and defense plans are prepared concurrently and include a scheme of maneuver and fire support plan. Alternate plans are also prepared. The development of the ground tactical plan is essentially as dis-

cussed in chapters 4, 5, and 6. However, additional consideration is given to the following:

(1) *Zones.* Zones assigned to subordinate units should include adequate drop zones and/or landing areas. A company should not be required to fight in divergent directions. Desirably, the boundaries designated apply to both the assault and defense phase of the operation.

(2) *Objectives.* Objectives assigned include those areas whose early seizure is required for mission accomplishment. Additional objectives should be selected to insure directional control for companies in expansion of the airhead and to insure a smooth transition from the assault to the defensive phase.

(3) *Assembly areas.* In a parachute assault, units reorganize in assigned assembly areas and attack immediately to seize objectives. Units may be directed to attack before assembly is complete. In an airlanded operation, assembly time is reduced and reorganization is simplified.

(4) *Security forces.* In airborne operations, because of the expanded area of responsibility dictated by a perimeter-type defense, it is necessary to economize on use of security forces. A single security echelon forward of the airhead line is usually all that is practicable. In brigade-sized or larger airheads, this security echelon is the COP. The security echelon for an independent battalion airhead may be composed of local security detachments provided by the forward companies and/or battalion resources or by a battalion COP. The battalion normally controls forces employed in the security echelon during the assault. After the objectives are secured, companies along the airhead line are normally given responsibility for the security forces within their sectors. If the battalion is participating in the airborne operations as part of a larger force, additional security forces may be provided by brigade or division.

(5) *Employment of the reserve.* The reserve normally enters the objective area in the assault echelon. It may be assigned security missions to protect supporting artillery and mortars under battalion control; to protect supplies and installations in the vicinity of drop zones and landing areas; or other missions which will not preclude its availability for execution of its primary mission. In the defense, reserve elements of companies on the airhead line may be designated as battalion reserve.

(6) *Fire support.* In an airborne operation, the battalion commander relies upon subordinate elements to seize their initial objectives or perform initial tasks by independent action. As a result, he may decentralize control of supporting

weapons to task force or company level. The battalion mortar platoon may be employed by section, in an attached or direct support role. Squads from the battalion antitank platoon and Redeye teams are normally attached to the assault companies. The absence of friendly armor places greater reliance on use of antitank weapons. Artillery, if attached, is retained under battalion control. Close air support is used to supplement artillery and antitank weapons. As soon as practicable, supporting weapons revert to their normal role of direct or general support.

(7) *Independent operations.* The battalion, operating independently or as part of a larger force, may seize a separate objective area (fig 7-5). In such a case, the battalion commander develops his ground tactical plan as described above, but he selects his own airhead line and provides for his local security within the limitations prescribed by the higher commander. The battalion commander translates his mission into terms of objectives on the ground which must be seized to accomplish the assigned mission. The airhead line normally circumscribes all of the objectives and the maneuver space required for their defense and desirably includes adequate drop zones and landing areas. The selection and location of the objective area is influenced by the following inter-related factors:

- (a) Mission of the force.
- (b) Enemy situation and capabilities.
- (c) Characteristics of the terrain.
- (d) Capability of the force.
- (e) Landing areas available.
- (g) Nature of subsequent operations.

(8) *Other considerations in ground tactical planning.* In the development of the ground tactical plan, the battalion commander must consider the following factors which are characteristic of airborne operations and may affect the success of the operation:

- (a) The possibility of engagement immediately after the landing with resultant difficulties in control and reconnaissance.
- (b) Limited artillery support. Elements of the battalion may have to attack before support elements have occupied firing positions.
- (c) Greater separation of units, resulting in exposed flanks and rear.
- (d) Confused tactical situation with both friendly and enemy forces lacking information of the other.
- (e) The difficulty of command and control in fast-moving or obscure situations.
- (f) The possibility that all or a major por-

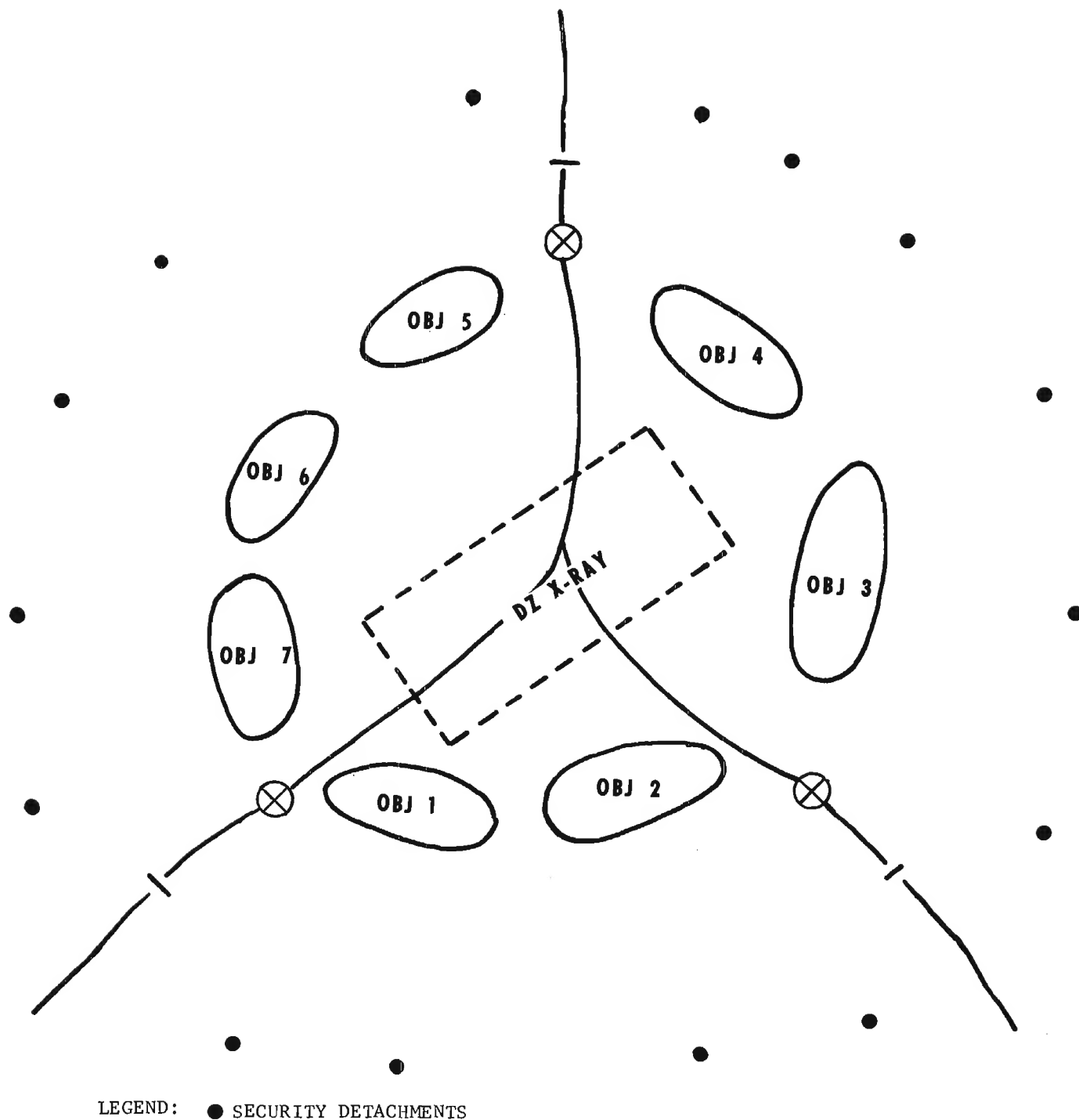


Figure 7-5. Scheme of maneuver, independent airborne infantry battalion airborne operation.

tion of the battalion may be unable to assemble before the attack because of enemy action.

(g) Lack of armor support.

(h) Limited mobility.

(9) *Assembly and reorganization.*

(a) The battalion commander plans for the rapid assembly and reorganization of the battalion

after the landing. Assembly should facilitate seizure of the objective(s). The battalion may assemble and reorganize as a unit in one general assembly area, or it may assemble and reorganize in dispersed areas. The method is influenced by the probability that strong enemy forces may be engaged soon after landing favors reorganization of the battalion in one assembly area, or the prob-

ability of enemy nuclear attack favors reorganization in dispersed assembly areas.

(b) The battalion commander may select assembly areas or delegate this function to company commanders. Alternate assembly areas are selected.

(c) Desirably, assembly areas should provide good cover and concealment from enemy observation and fire; be of sufficient size to allow adequate dispersion; be close to the drop zone; facilitate movement to the objective(s); and be easily identified by prominent landmarks.

(d) Appropriate assembly aids are prescribed to include panels, colored smoke and pyrotechnics, colored lights, radio homing devices, audible signals, and distinctive markings on clothing and equipment.

e. Landing Plan.

(1) The landing plan is based on the ground tactical plan. It covers the sequence, time, and place of arrival of troops and materiel in the objective area. Drop zones are normally selected on objectives or as close to them as the terrain and enemy situation permit. However, when insufficient or inadequate drop zones exist, boundaries may be shifted or several units may use the same zone. The battalion commander selects drop zones or landing areas after receiving recommendations from the staff and subordinate commanders.

(2) If different loads are to be delivered to a single area, they are preferably delivered in the following order: parachutists and then heavy drop, followed by aircraft landings.

(3) Alternate drop zones and landing areas are selected whenever practicable.

f. Air Movement Plan.

(1) The air movement plan is prepared jointly by the ground and troop-carrier/aviation commanders concerned. It is based on the landing plan and includes the composition of aircraft, loads, organization of serials, and instructions for flight of the aircraft from the loading area to the objective area.

(2) An air movement table, which is published as an annex to the operation order or as an appendix to the air movement plan annex, is developed jointly by the ground and airlift commanders. The table gives the executing units detailed instructions on flight serial composition, the number of aircraft allocated, time for loading and takeoff, loading sites, and drop zones or landing areas. The air movement table prescribes the timing of the operation. An air loading table, based on the air movement table, is prepared by

the ground commander. Flight manifests are also prepared.

g. Marshaling Plan.

(1) Marshaling is the process by which units complete final preparations for combat, move to loading sites, and load in assigned aircraft. The marshaling plan is based upon the air movement plan. Air loading tables (part of the air movement plan) indicate the personnel, vehicles, and equipment assigned to each aircraft; the loading site; and the times of arrival and departure.

(2) The battalion completes preparations in a marshaling area before moving to a designated loading site. The loading site may be at the departure airfield, or it may be a point where the aircraft land only long enough to load and then fly to the departure airfield or the objective area. Several units may load in succession at the same loading site. The loading site should be as near as possible to the marshaling area for better secrecy and to reduce the time required to move the unit.

(3) In nuclear warfare, both air and ground units avoid concentration during the marshaling phase. This requires that both air and ground elements remain dispersed, conceal preparations, and move to loading sites just prior to loading and takeoff.

(4) Troops are briefed in detail. All available briefing aids are used. Commanders of battalions and companies receive a common briefing on the missions of other units participating in the operation. Prior to enplaning, a pilot-jumpmaster briefing is conducted. Thus, in the event of inaccurate landings or unforeseen enemy action, missions may be shifted with a minimum of delay. Counterintelligence operations and security are emphasized.

(5) With regard to loading, the following considerations apply:

(a) The battalion commander designates a sequence for the movement of units, supplies, and equipment to the loading sites based on the time required for loading and the scheduled time of takeoffs. Maximum security and secrecy are enforced.

(b) Movement to the loading site may be by foot, vehicle, or aircraft. Transportation requirements and movement control are planned in coordination with appropriate agencies who provide such support.

(c) Supplies and equipment are broken down into aircraft loads in the marshaling areas. They are transported to loading sites as are the personnel required to load and lash the materiel in the aircraft. Plane loads of supplies leave the mar-

shaling area on a schedule to meet assigned aircraft at the loading sites.

(d) Troops are organized into aircraft loads in the marshaling areas and they move to loading sites by aircraft load under supervision of the jumpmaster. Upon arrival at the loading site, each group moves to its assigned aircraft. The battalion commander is responsible for the loading of personnel, supplies, and equipment under the supervision of supporting aircraft representatives and in accordance with the air loading table.

7-33. Conduct of Airborne Operations

a. General. The loading, takeoff, and assembly of air serials from all departure sites are scheduled by the headquarters controlling the air movement. The troop-carrier commander prescribes the system used to expedite takeoff and landing, rendezvous and departure points, flight formation, assembly pattern and flight routes, emergency and crash procedures, and similar details concerning airfield operations and air movement.

b. Air Movement. The air movement to the drop zones and landing areas is under control of the troop-carrier commander. The air movement is made in accordance with the battalion air movement plan.

c. Landing and Reorganization.

(1) *General.* The landing and reorganization for the initial assault are the most critical periods for the battalion; therefore, these operations must be executed with speed and precision. When necessary, security is sacrificed for speed and control of reorganization.

(2) *Landing.* Battalion elements are landed on or as close to their objectives as possible. Normally, time is required for these elements to collect their equipment and assemble as tactical units before engaging in combat. Surprise is enhanced by landing on the objective or making the move to the objective as short as possible. The serials are organized to facilitate implementation of the ground tactical plan.

(3) *Reorganization.*

(a) The battalion reorganizes according to a prearranged plan, using designated assembly areas, assembly aids, and identification markings for personnel and equipment.

(b) Security elements assemble and move to their positions. Remaining elements move quickly to their assembly areas, carrying the equipment and supplies required for missions. Mortar, artillery, and other units occupy their ini-

tial firing positions and prepare to support the reorganization.

(c) Radio nets are opened on landing. Company and attached unit commanders report status of personnel and equipment as prescribed in the battalion SOP. The battalion reorganization is complete when all units have assembled or have been accounted for and battalion control has been established.

(d) Troops landing outside the planned area assemble rapidly under control of the senior officer or NCO. He establishes contact with their respective headquarters as soon as possible. Lacking other orders, such groups direct their efforts toward accomplishing the overall mission. Individual stragglers join the nearest unit and rejoin their own units as soon as the situation permits.

(e) The situation may require the battalion to attack before completing its reorganization. In the absence of other orders, unit commanders determine when their units are reorganized to the point they can assume the attack. All commanders move their units as rapidly as possible to capitalize on surprise. If the battalion becomes engaged upon landing, individuals and small groups fight to secure the landing area. Successively larger units establish control and reorganize as the situation permits.

d. Subsequent Operations. After seizing the objective area, an airborne force may defend, linkup with a surface force, conduct retrograde operations, or conduct further ground offensive operations.

(1) *Defense as part of larger force.*

(a) The battalion defends its sector essentially as described in chapter 5. When the sector is too wide for mutual support between units, the battalion may organize one or more strong points. Surveillance of gaps is accomplished by ground or airborne radars, observation and listening posts, ground patrols, observation aircraft, and air-transported patrols. Units employed on surveillance missions may be elements withdrawn from the security forces, a portion of the battalion reserve, or elements sent on patrol by subordinate units within their sectors.

(b) The battalion commander takes action to eject, block, or destroy enemy forces which approach battalion strongpoints. When unable to prevent a penetration of the airhead line within his sector, he defends the key terrain and requests assistance from brigade.

(c) The situation may require the battalion to send rifle companies or platoons beyond the de-

fensive area to establish patrol bases, roadblocks, or to conduct raids or limited-objective attacks against enemy forces and installations in the vicinity. Elements on these types of missions do not become engaged to the extent that they are unable to disengage and withdraw to their defensive positions.

(2) *Defense in independent operations.* When the battalion operates independently or while separated from other units, it organizes the defense of its objective area in a manner similar to the perimeter defense described in paragraph 5-43.

(3) *Antitank defense.* The battalion emphasizes antitank measures. Positions are selected to take advantage of natural and manmade obstacles to enemy armor. All personnel are trained to establish hasty antitank obstacles. By proper use of obstacles and organic and attached antitank weapons, the battalion can reduce its vulnerability to enemy armor.

e. Offense.

(1) The ground attack phase of the airborne operation is conducted generally as described in chapter 4. The reconnaissance platoon, supporting engineers, and other units assigned reconnaissance and security missions move rapidly to locate enemy forces; to disrupt enemy communication facilities; and to provide early warning, security, and information. When the objective area is defended lightly, security forces may land on or move directly to their positions. Army aircraft, if available, begin their surveillance of the battalion sector and avenues of enemy approach and act as observers for supporting weapons.

(2) Organic and attached antitank weapons cover approaches favorable to enemy armor. Elements of the antitank platoon attached to subordinate elements are returned to battalion control as soon as practicable. Landing the battalion near its objective facilitates support by the battalion mortar platoon since it reduces the frequency of displacement and the distance ammunition has to be carried. Attached or supporting artillery provides fire support for security elements beyond range of the mortars. Close support aircraft, in addition to maintaining air superiority, augment artillery and antitank weapons and supplement the striking power of assault units.

(3) When the objective is a considerable distance from the assembly area and enemy resistance is expected to be light, the battalion or company may use an approach march formation.

7-34. Battalion as Brigade or Division Reserve

a. The battalion may constitute all or a part of

the brigade or division reserve in the airborne assault. Elements of the battalion in reserve may be committed by attaching them to other battalions, particularly in the initial stages of the assault.

b. The reserve battalion will normally be brought into the objective area in the assault echelon. Planning for the air movement, landing, and reorganization is the same as for other battalions. The reserve commander plans for commitment during the assault and subsequent operations as described in chapters 4, 5, and 6.

c. The brigade commander's plan includes the maximum use of available transportation for movement of the reserve battalion within the objective area. This may include helicopters organic to the division and any other available transport aircraft.

d. When elements of the brigade or division are simultaneously committed in widely separated areas, the reserve battalion(s) may be held in readiness in a departure area, prepared for aerial delivery in an assault role. In such a case, the reserve battalion commander prepares plans for commitment as appropriate. When committed, control is decentralized. All or a part of the reserve may be committed and may land under a variety of conditions. It may land in a secure area and be attached to a force that has been particularly successful; it may reinforce a unit by making an assault landing; or it may assume the mission of a unit that has been subjected to enemy action which has reduced its combat effectiveness. Planning must be flexible and the reserve must be maintained in a high state of readiness.

e. The conduct of the battalion as reserve reflects the following considerations:

(1) *Offense.* The reserve battalion accomplishes its mission in offense as described in chapter 4. When assigned limited offensive or security missions, the reserve battalion commander allocates the minimum force needed, retaining the maximum force to support the attacking battalions or to take over their missions. When so ordered, he employs his organic and/or attached fire support means to support the attacking battalions.

(2) *Defense.* The battalion as brigade reserve may be employed in the counterattack or blocking role, or both. It is employed generally as described in paragraph 5-44. When the brigade or division seizes an objective area too large to permit organizing the airhead line with mutually supporting positions, the reserve battalion may organize one or more strongpoints.

7-35. Combat Service Support

In the airborne infantry battalion, the support platoon leader normally accompanies the assault echelon, and the S4 remains in the marshaling area to insure adequate logistical support. Sufficient supplies accompany units into the objective area to meet their initial requirements. Subordinate units assigned offensive missions upon landing are not burdened with large amounts of supplies which they will have to recover and protect. Companies land with those supplies that can be carried on organic vehicles or by their personnel.

A minimum size combat trains element lands with the battalion. Additional supplies are landed with and recovered by the battalion, which establishes distributing points and sends supplies forward to the companies on battalion transportation. Units operating on separate missions or isolated from the battalion may be supplied by air. Followup supply should be delivered as close to unit positions as possible. As soon as landing facilities are available, aircraft may be used for evacuation of casualties, prisoners of war, and items of immediate intelligence value.

Section VIII. AIRMOBILE OPERATIONS

7-36. General

a. Employment of the Battalion. Infantry battalions conduct airmobile operations as a routine part of land combat. The mechanized battalion, less its heavy equipment, can conduct airmobile operations when provided adequate airlift. However, its use for this purpose is infrequent except during stability operations.

b. Basic Considerations.

(1) With normal aircraft availability, the organic airlift aviation of the airborne and infantry divisions can airlift the assault elements of one rifle company in a single lift. Therefore, battalions of these divisions normally conduct company-size airmobile operations. Larger operations require corps or field army aviation support. (See fig 7-6 through 7-8 and para 7-37e for those factors which affect these stated capabilities).

(2) The aviation group of the airmobile division can airlift the assault elements of two airmobile battalions and three artillery batteries simultaneously with normal aircraft availability. Airmobile battalions conduct multiple company operations during normal operations.

(3) When authorized, pathfinder detachments augment aviation units to provide terminal guidance. Within the lifting unit, specially trained guidance (unit terminal guidance) personnel may be used in airmobile operations especially at night or during other periods of reduced visibility consistent with security requirements. Personnel from units that routinely conduct airmobile operations are also trained for terminal guidance and may be used in place of regular pathfinder detachments.

(4) When possible, routes flown by aircraft should avoid areas occupied by enemy forces to reduce losses to ground fire or the loss of surprise. All means of intelligence are employed to determine the flight routes. Pathfinders provide naviga-

tional assistance and air traffic control in the objective area.

(5) Airmobile operations are normally unsuited for direct assault of heavily defended objectives.

(6) A daylight airmobile operation is more easily controlled and permits more effective air and artillery support than one conducted at night. Daylight also facilitates assembly of troops and equipment. However, darkness aids tactical surprise and reduces the effectiveness of enemy fire.

(7) The battalion may retain a reserve on airmobile operations in order to influence the conduct of the battle. The reserve may vary in size from a reinforced rifle company to a rifle platoon, depending on the enemy situation and troops available. The reserve may be initially held at the loading area or airborne in orbit. On occasion when all rifle companies are to be committed in the initial assault to seize objectives, all companies are given the additional mission to be prepared to become battalion reserve on order. The reserve, when required for commitment, will be the *least* engaged (or an unengaged) rifle company. The reserve, if retained and not committed in the initial assault to seize an objective, will often move into the objective area in the assault echelon; however, it will seldom move in the initial lift, particularly if availability of aircraft makes shuttle movement necessary.

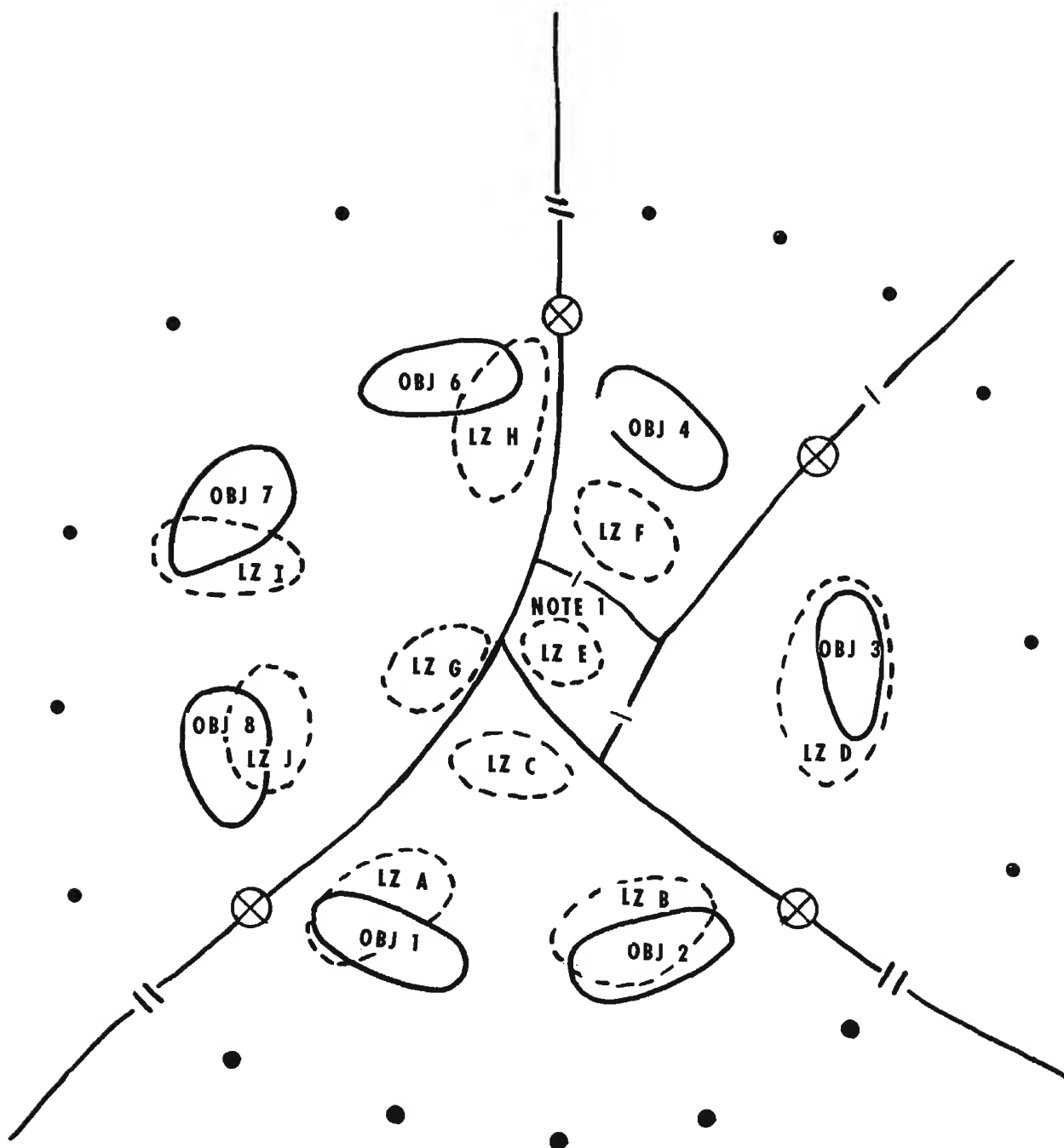
(8) Alternate plans are prepared to cover contingencies resulting when:

(a) Part of the force cannot accomplish its particular mission.

(b) Signal communication is disrupted.

(c) Weather conditions or enemy action prevent the use of designated routes or landing areas or interfere with landings.

(d) Withdrawal from the objective area becomes necessary or desirable.



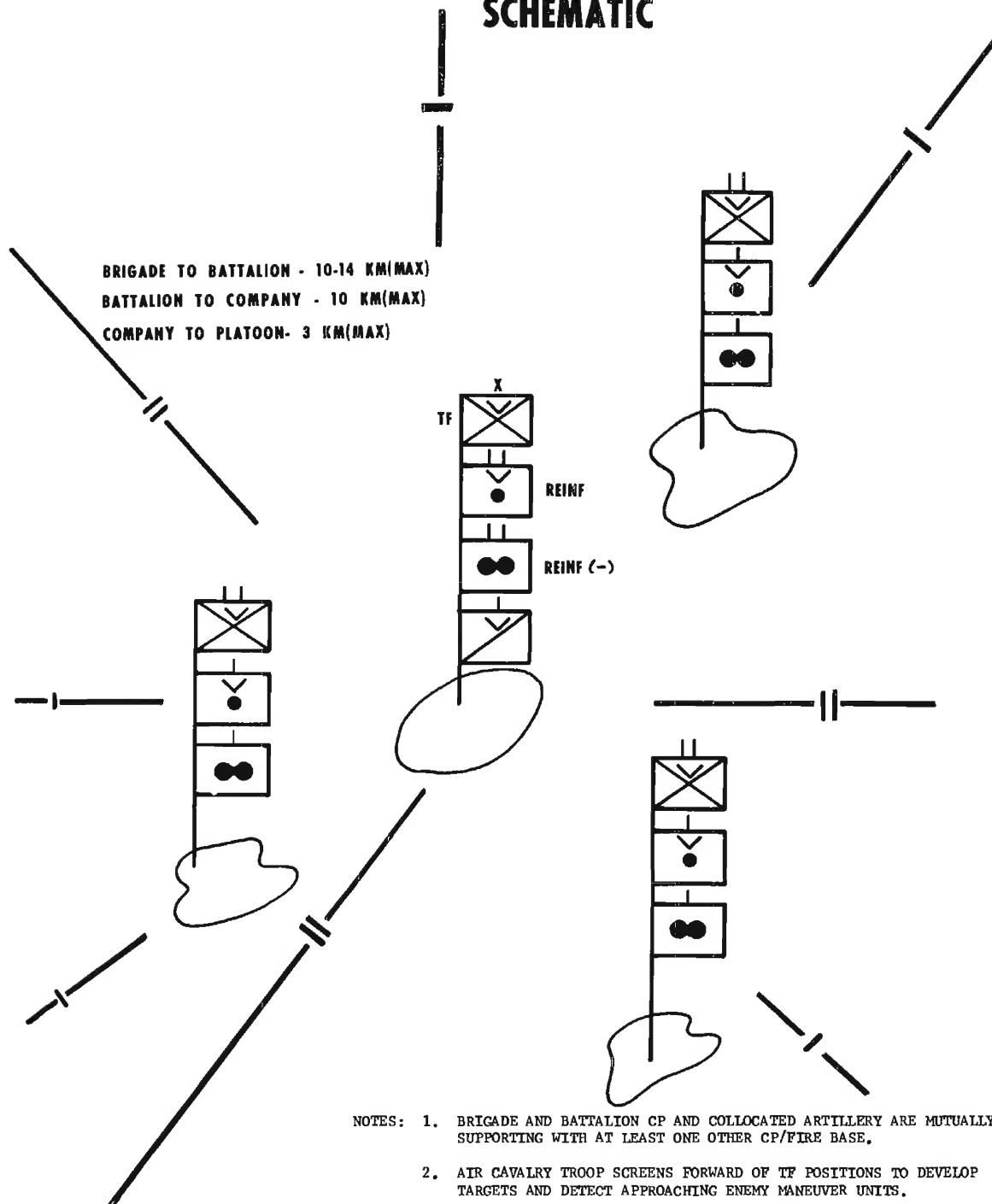
LEGEND:

- SECURITY DETACHMENTS

NOTE: LANDING ZONE E WILL BE ASSEMBLY AREA FOR THE BATTALION RESERVE COMPANY; RECONNAISSANCE PLATOON ATTACHED TO COMPANY SEIZING OBJ 3 TO OCCUPY SECURITY POSITIONS IN THAT SECTOR.

Figure 7-6. Scheme of maneuver, battalion airmobile operation as part of a larger force seizing and defending an objective.

SCHEMATIC



- NOTES:
1. BRIGADE AND BATTALION CP AND COLLOCATED ARTILLERY ARE MUTUALLY SUPPORTING WITH AT LEAST ONE OTHER CP/FIRE BASE.
 2. AIR CAVALRY TROOP SCREENS FORWARD OF TF POSITIONS TO DEVELOP TARGETS AND DETECT APPROACHING ENEMY MANEUVER UNITS.
 3. INTERDICTION AND DEFENSE IS CONDUCTED IN AN OFFENSIVE MANNER. TARGETS ARE ENGAGED BY FIRE AND SURPRISE ATTACK. AIRMOBILITY, SURPRISE, AND FIREPOWER ARE EMPHASIZED.
 4. FORMAL RESERVES ARE NOT RETAINED; IF REQUIRED, AN UNENGAGED OR LEAST ENGAGED UNIT IS COMMITTED IN A COUNTERATTACK OR REINFORCING ROLE.
 5. RESUPPLY IS CONDUCTED BY AIR LINE OF COMMUNICATION.
 6. BRIGADE/BATTALION LOCATIONS MAY BE MOVED OFTEN TO LESSEN CHANCE OF BECOMING DECISIVELY ENGAGED.

Figure 7-7. Scheme of maneuver, battalion airmobile operation as part of a brigade TF conducting a deep penetration, independent, area interdiction operation.

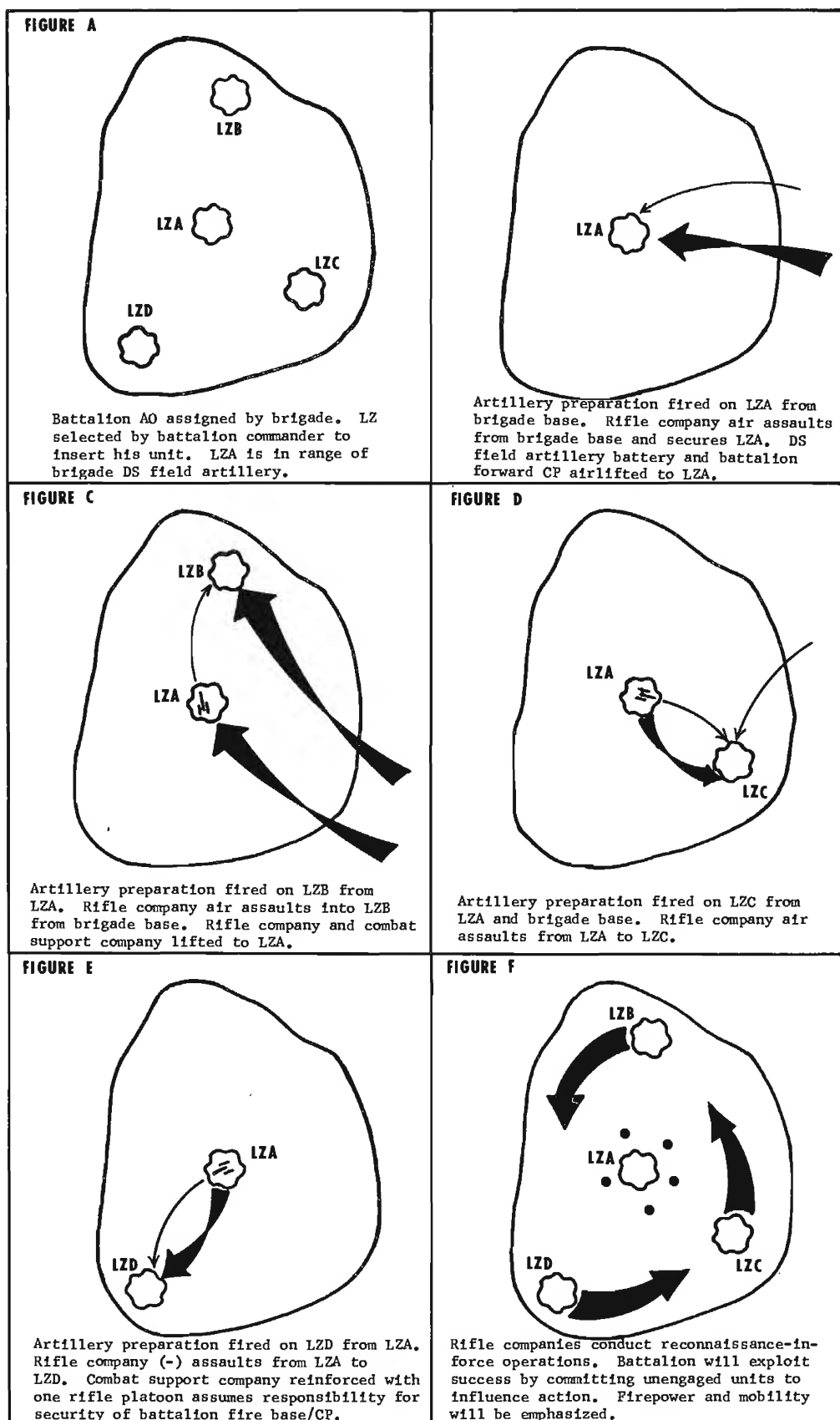


Figure 7-8. Sequence of events, battalion airmobile reconnaissance-in-force operation as part of a brigade TF against a guerrilla force.

(9) Selection of the time of landing is influenced by:

(a) Mission.

(b) Enemy situation and capabilities (air and ground).

(c) Forecasted weather.

(d) Availability of artillery, air, and nuclear fires.

(e) Availability of aircraft.

(10) *Conduct of an airmobile operation.*

(a) Control of the loading, takeoff, and movement of units is normally centralized at battalion level to facilitate control and fire support coordination. If the landing is observed and taken under fire by the enemy, the task force commander may decide to use alternate plans to avoid excessive losses of personnel and aircraft.

(b) Units reorganize quickly and conduct a ground attack to seize objectives in the area.

(c) For detailed discussion of airmobile operations, see FM 57-35.

7-37. Planning Airmobile Operations

a. General.

(1) Commanders must be alert for opportunities that arise or which they may create for the employment of an airmobile force to influence materially the outcome of a ground engagement. Planning includes a constant assessment of the tactical situation by the commander and staff. They determine whether the employment of airmobile forces is within the capability of the unit and whether such forces would materially influence the ground battle.

(2) In airmobile operations, the planning sequence must be in reverse chronological order. The plan is formulated from mission accomplishment back through organization of the landing zone to operations at the pickup zone.

(3) Subordinate commands, down to and including companies, may be directed to conduct all or part of the more detailed planning once the mission, objective, and size of the force have been established.

(4) *Echelonment.* Combat elements of a force which is to participate in an airmobile operation are normally organized into echelons:

(a) *Assault echelon.* This element consists of those forces and their equipment that are airlanded in the objective area to engage in ground combat. It may require one or more lifts, depending on its size and the number and type of aircraft available.

(b) *Resupply or follow-up echelon.* This element consists of combat support and combat

service support to sustain the assault echelon until the mission is accomplished.

(c) *Rear echelon.* This element consists of the remainder of the force; that is, forces and equipment not immediately or not at all needed in the objective area, such as administrative personnel and equipment and items that cannot be transported in available aircraft. The rear echelon either remains in a rear area until termination of an operation or accompanies the ground linkup force.

b. *General Considerations.* Plans for an airmobile operation must be detailed and flexible. All commanders and leaders must be prepared to overcome unforeseen difficulties and to exploit opportunities that arise during the operation. SOP's can reduce details required in unit plans.

c. Planning Sequence.

(1) Planning for an airmobile operation is developed in the following sequence:

(a) Ground tactical plan, to include plans for withdrawal or extraction, reorganization, redeployment, and preparation for subsequent operations.

(b) Landing plan, to include timing and phasing of troops and equipment based on the ground tactical plan and preplanned fire support.

(c) Air movement plan, based on the landing plan.

(d) Loading plan, based on the air movement plan.

(e) Staging plan, based on the loading and air movement plans (when required).

(2) The five plans listed above are normally included in or listed as annexes to one operation order or are in part established by unit SOP. Linkup and extraction plans are also included when applicable. Normally, operations will be conducted by unit SOP. The plans are all closely related and developed concurrently. Combat service support planning is continued throughout the planning sequence.

(3) The staging plan and air movement plan discussion is minimized in the planning sequence because details of staging and air movement are contained in unit SOP, thereby making it necessary only to designate departure areas close to the units to be lifted.

d. *Command and Staff Reconnaissance.* In planning for an airmobile operation, commanders and staffs conduct as detailed a reconnaissance as time and situation permit. Because an airmobile operation relies heavily on intelligence, the verification of intelligence through aerial reconnaissance is a major consideration. Normally, the airmobile task force (AMTF) commander, the air mission com-

mander, the fire support coordinator, the air liaison officer, staff planners, and pathfinders (if used), conduct an aerial reconnaissance of the planned flight routes, landing site and zone(s), and objective areas, if the situation permits. The operation must not be compromised through excessive or careless reconnaissance of the operational area. Information obtained during the aerial reconnaissance is similar to that obtained during ground reconnaissance; however, stress is placed on the following:

- (1) Suitability of landing zones and drop zones.
- (2) Control points (easily recognizable terrain features).
- (3) Location of assembly areas (if required).
- (4) Obstacles in the objective area.
- (5) Flight routes and air corridors for approach and return flights.
- (6) Enemy forces in proximity to landing zones and objective areas.

e. Atmospheric Conditions.

(1) The ground commander should understand the effects of atmospheric conditions on his lift support and, as a consequence, on his airmobile operations. Density altitude, the one factor which will probably most frequently affect operations, is a term used to equate a given air density to an altitude above sea level on a standard day (59°F at sea level). Temperature and elevation have the most effect on density altitude. An increase in either or both of these factors results in a higher density altitude condition. As the density altitude increases, the lifting capability of the aircraft decreases. What this represents, to the commander, is that as temperature increases he will either have a lesser lift capability or he will require more aircraft for a given mission.

(2) Wind frequently will affect airmobile operations. Wind factors that must be considered are direction and velocity. An aircraft taking off or landing into the wind requires less forward motion over the ground than with a no-wind condition. A downwind condition (taking off or landing with the wind) has exactly the opposite effect of a head wind. Takeoffs and landings should be planned into the wind when possible.

(3) Helicopters can be operated under adverse visibility conditions. However, reduced visibility makes navigation and formation flying more difficult, and increases the possibility of mid-air collisions. When visibility decreases below normal safe limits, the air mission commander should recommend cancellation of the airmobile operation to the AMTF commander, based on consideration of factors such as terrain, density of air traffic in

the area, state of training of his aviators, and the urgency of the mission. The final decision as to whether to accept the risk or delay or cancel the operation rests with the AMTF commander.

f. Security.

(1) Security of airmobile operations plans is of the utmost importance, and necessary counter-intelligence measures must be enforced to insure that plans are not compromised and thereby nullify the inherent advantages of an airmobile operation.

(2) Communication security must be exercised in the planning and buildup phases of an operation to prevent enemy intelligence personnel from gaining information through traffic analysis. A buildup in message traffic is just as revealing as a buildup in aircraft traffic.

(3) During the operation, with participating units depending almost entirely on radio communication, care must be taken to avoid transmitting information over the radio which could be used by the enemy to materially affect the operation. Communication security training is a continuing requirement in this regard.

7-38. Ground Tactical Plan

a. General. The ground tactical plan includes the assault plan to seize objectives, and plans for defense, linkup, withdrawal, subsequent offensive operations, or displacement, as appropriate. When practical, assault and defense plans are prepared concurrently and include a scheme of maneuver and fire support plan. Alternate plans must also be prepared.

b. Ground Tactical Plan Considerations. The ground tactical plan is developed using approved principles of offensive, defensive, and retrograde operations. Because of the nature of an airmobile operation, special consideration is given to:

(1) *Zones of actions and sectors.* Assigned zones of action, sectors, or areas of operation should include adequate landing zones. Desirably, the boundaries designated should apply to the assault and subsequent phases of the operation.

(2) *Objectives.* Objectives include those areas whose early seizure is required for mission accomplishment. Objectives need not be consigned if seizure of specific terrain is not the mission.

(3) *Attack positions.* Attack positions may be selected by the ground force commander whenever the ground unit lands away from its assigned objective and must conduct a conventional assault using an LD and a zone of action or direction of attack to seize the objective. The attack position is the last covered and concealed position short of

the LD which is occupied by the ground unit to allow the final coordination and to deploy in the initial attack formation. In airmobile operations it will frequently coincide with the assembly area.

(4) *Security forces.* Because of the greatly expanded area of responsibility found in an airmobile operation, it is usually necessary to economize on the use of security forces. A single security echelon forward of the objective area defense line may be all that is practicable. The forces for the security echelon are normally provided by the forward elements. After the objectives are secured, units along the defense line of the objective area may be given responsibility for the security within their sectors. To enhance early security for the airmobile assault, security forces may land directly on their positions. Air cavalry and other armed aircraft may be employed to extend the range of security operations.

(5) *The reserve.* The reserve normally is brought into the objective area in the assault echelon, but not necessarily on the initial lift when a shuttle movement is required. The reserve may remain in the loading area with its aircraft prepared for movement to any point in the objective area, it may be airborne on station, or it may be designated as the *least* engaged, unengaged, or the most readily assembled unit. Additional reserves may become available from other elements of the airmobile force as initial tasks are accomplished.

(6) *Fire support.* In airmobile operations, elements are expected to seize their initial objectives rapidly by independent action. Centralized control is established as soon as possible. Armed helicopters and USAF tactical air will provide aerial escort and responsive fire support to the air transported force during the loading and air movement. Attack helicopters organic to the aviation element will provide aerial escort to the airmobile force during movement to the objective area. Attack helicopters organic to the aerial field artillery element, with other non-organic fire support (tactical air, ground based field artillery, and naval gunfire) will provide fire support to the airmobile force during airmobile operations. In an emergency, the attack escort helicopters may provide fire support to the airmobile force. For a detailed discussion of fire support, see FM 6-20-1 and FM 6-20-2.

(7) *Objective area.* The commander translates his assigned mission into terms of objectives on the ground which must be secured in order to accomplish the mission. The objective area normally circumscribes all the unit objectives and maneuver space required for their defense. Fire control measures include fire support coordination

line, fire coordination line, no fire line, and normal infantry control measures such as boundaries. Airmobile units require larger areas than infantry units in the defense because they emphasize offensive action to capitalize on their mobility to overcome enemy threats rather than becoming fixed on a particular terrain feature. Enemy units threatening the airhead are attacked by aerial firepower and airmobile maneuver forces as they approach the objective area and before they can directly engage those forces protecting the objective.

c. *Other Considerations.* In developing the ground tactical plan, the following additional factors characteristic of airmobile operations must be considered:

(1) The necessity for placing concentrated preparatory fires on the periphery of the landing zone(s) immediately prior to the landing of an assault force.

(2) Possible lack of immediately available artillery support. (Aerial artillery may be available when direct support field artillery units are not within range of the objective area.)

(3) Increased reliance on close air support.

(4) The possibility of immediate engagement upon landing.

(5) The possibility of shuttling assault forces to the objective area because of the limited number of available aircraft, or loss of aircraft from unexpected mechanical failure or as a result of enemy action.

(6) Rapidly changing tactical situation.

(7) Limited ground mobility and reliance on airmobility to maneuver ground forces within the objective area.

(8) Greater separation of units, resulting in exposed flanks.

(9) The requirement for expedient deceptive measures and devices designed to mislead the enemy as to strength and dispositions of the airmobile task force.

d. *Conduct of Assault.*

(1) The infantry assault phase of an airmobile operation begins with the landing of the lead elements and continues through the seizure of the objective area, or the departure of the ground force from the landing area if no objectives are to be seized.

(2) The fact that an airmobile force usually lands where there are few fixed defenses and few well-organized enemy combat troops facilitates rapid seizure of initial objectives. The enemy is expected to react rapidly. Initial counterattacks are likely to be hasty, uncoordinated thrusts along main avenues of approach with any units available. These attacks increase in strength, mass, and

coordinated effort and may possibly include counterattacks by enemy airmobile forces.

(3) There are two general maneuver plans for airmobile assault, which differ primarily in the proximity of the landing zones to the initial objectives assigned to a unit.

(a) The first type involves the landing of assault units immediately adjacent to or on initial objectives; it is the type used whenever feasible. Landing zones and landing sites (strips) are selected to capitalize on surprise and the capability of small units to land as a unit on almost any type of terrain. This type of assault has the advantages of exploitation of surprise, avoiding exhaustion en route to the objective, and greater initial dispersion.

(b) The second type of assault involves landing, assembly, and reorganization, and then an attack to seize initial objectives. Landing zones and landing sites are selected for their suitability for landing, assembling, and reorganizing larger units without enemy interference. This type of assault is used if the terrain and enemy situation do not permit landing on, or immediately adjacent to, initial objectives. It has these advantages:

1. Loading, movement, and landing are simplified, may reduce losses of aircraft and personnel in the landing phase; and coordinated action is facilitated by establishing control of small units before engaging the enemy in ground combat.

2. Organic fire support is more easily coordinated with ground maneuver.

(c) A variety of factors influence the selection of the type of assault. These include the mission, the state of training of participating units, the terrain, the strength and disposition of enemy forces, and the capability of either side to employ nuclear weapons.

e. Seizure of Initial Objectives.

(1) Initial combat after landing requires the coordinated and aggressive action of small units to seize assigned objectives rapidly before the advantage of surprise is lost. All available fire support is used as required. Units assigned reconnaissance and security missions are positioned in the air movement serial to land early and move out rapidly, or to land in the security area and away from the objective area to establish roadblocks, locate enemy forces, disrupt enemy communication facilities, and provide the airmobile task force commander with early warning, security, and information. Alternate landing zones are not normally used until first-landed forces are strong enough to protect themselves; however, *commanders should not reinforce failure, but instead*

should attack from a new direction to relieve pressure on hard pressed assault units.

(2) After initial objectives have been secured, subordinate units may seize additional objectives that aid in establishing a coordinated defense. Defensive positions if appropriate, are organized, communications are supplemented, reserves are reconstituted, and other measures are taken which are necessary to prepare the force to repel enemy counterattacks, to minimize the effects of attack by nuclear weapons, or to resume the offensive.

f. Development of the Objective Area.

(1) After initial objectives have been secured, the major consideration is to organize the objective area, if the mission calls for the retention of the objective area. This is accomplished initially by seizing key terrain features and/or the destruction of the enemy forces on the perimeter of the objective.

(2) The extent to which the objective is occupied and organized for defense is determined largely by the mission, enemy capabilities, and defensive characteristics of the terrain. If the mission calls for an early continuation of the ground offensive beyond the initial limits of the objective, and if the likelihood of enemy counterattack during the interim is negligible, the objective is lightly organized. If the mission calls for defense of the initial objective area for a considerable period of time, or if an early enemy counterattack appears likely, more effort is expended in organizing the entire area in depth.

g. Defense of the Objective.

(1) Airmobile operations involving the retention of the objective area normally have a defensive phase. The period of time involved may vary from a few hours to a few days, depending on the mission assigned, the size and composition of the force, the enemy reaction, and the type of subsequent operation contemplated.

(2) Defense measures against nuclear, chemical, armored, and air attack are of particular importance during and following an airmobile operation.

(3) The mission and requirement for defense may dictate the assignment of wide frontages to combat elements of the force.

(4) Defense of the objective area is accomplished by organizing and occupying the dominant terrain along the edge of the objective to cover main routes of approach into the position; by denying the enemy use of terrain between defended localities with visual and electronic observation and surveillance device; by use of fire, mines, and other artificial and natural obstacles; by contin-

uous patrolling; and by withholding an airmobile reserve to attack enemy units as they approach the objective area. Enemy attacks are countered by shifting units, reinforcing threatened areas, employing massed fire support, and counterattacking with reserves. Reserves and the helicopters for their transportation are held in positions of readiness to attack threatening enemy units, to counterattack, to occupy defense positions, to reinforce units in the security area, or to execute blocking missions.

(5) Engineer support is used for obstacle construction, demolition, or special operations required during the conduct of the defense.

7-39. Landing Plan

a. General.

(1) The landing plan is based on the ground tactical plan. As a minimum, it includes the sequence, time, and place of arrival of units, equipment, and supplies in the objective area. Landing zones are normally selected as close to objectives as the terrain and enemy situation permit. Such selection normally will eliminate or minimize the requirement for assembly areas. Several units may use the same landing area when available landing areas are insufficient or inadequate.

(2) Based on recommendations from the aviation mission commander, the airmobile task force commander designates the landing zones and sites to be used by each subordinate unit, and the airmobile task force commander establishes priorities for their landing. Alternate landing zones are designated for use in the event the desired landing zones are unusable. Concurrently with the development of the scheme of maneuver, availability of landing zones and sites is considered. All landing zones are selected to provide the best disposition of units for seizing objectives. Normally a unit is landed in its assigned sector. If there are not enough landing zones in the assigned sector, elements of the unit may land in the sector assigned another unit. Selection of several landing zones in an area is mandatory. False landings designed to deceive the enemy are highly desirable. Plans should include provisions for use of aerial field artillery and attack helicopters, immediately prior to a landing, to strike tree lines or possible areas where the enemy could be concealed.

b. Timing.

(1) The commander selects the time of landing when his unit or its elements conduct an independent operation. In selecting the time for the landing, he considers the enemy dispositions and capabilities, the influence of predicted

weather, availability of fire support, and the plan for supporting fires.

(2) Units may land at beginning morning nautical twilight (BMNT) to take advantage of darkness during the air movement and to attack in daylight; or they may land at end evening nautical twilight (EENT) to facilitate delivery and attack during darkness. Airmobile operations conducted during daylight present fewer command and control problems. In daylight they can be more complex in scope as well as better supported by USAF tactical air.

(3) The airmobile task force may conduct an assault at night or under other conditions of reduced visibility to gain tactical surprise or as an extension of normal daylight operations.

7-40. Air Movement Plan

a. General. The air movement plan is based on the landing plan and support of the ground tactical plan. *It is prepared by the ground unit commander.* Technical assistance in preparing the air movement plan is rendered by the aviation mission commander providing the support aircraft and by the pathfinder unit, if used.

b. Air Movement Plan. The air movement plan includes a flight route diagram and an air movement table. In the absence of written orders, such information is covered in oral briefings.

(1) *Time schedules.* Loading, takeoff from the pickup zone, and assembly of the helicopter formation are performed according to a mutually planned time schedule that will place the lead elements of the first lift in the landing zone at H-hour, the time the airmobile task force commander has designated as touchdown time in the landing zone.

(2) *Flight routes.* The flight routes to and from the landing zone are selected to avoid known or suspected enemy positions. It is desirable that flight routes follow terrain which facilitates navigation to the landing zones. Alternate routes are also planned. A flight route is a control measure that permits more precise timing, and insures that the airmobile task force does not fly over undesirable areas. Each lift on a multiple-lift assault may use a different flight route.

(3) *Control measures.* Control measures used for an air movement include various control points as follows:

(a) *Start point (SP).* A point on the ground over which the airmobile task force commander flies to initiate timing and to establish flight route heading and altitude.

(b) *Air control point (ACP).* A point on

the ground along the flight route, easily identified from the air, used as a reference point to monitor the progress of the airmobile force. ACP may be assigned code numbers or names.

(c) *Release point (RP)*. A readily identifiable point on the ground over which individual flight elements are released to proceed to their landing zones.

(d) *Communications check point (CCP)*. A readily identifiable point on the ground along the flight route at which flight leaders initiate radio contact with landing zone control elements. Normally the CCP is also an ACP.

(4) *Flight corridor*. Supporting fires will be coordinated with the movement of the airmobile force. Flight corridors which include all flight routes are designated and coordinated with appropriate fire support coordination agencies. All fires within these corridors are coordinated or restricted.

(5) *Flight formation*. The flight formation for any given mission is influenced by technical as well as tactical considerations. Technical considerations govern flight restriction. An important consideration in this portion of the air movement plan is that flight serials are arranged within the formation to best support the landing plan and subsequent tactical operations. Normally escort aircraft will accompany the troop lift aircraft to provide fire support.

(6) *Altitude*. Low altitude flights reduce the enemy's capability to detect the air movement or to effectively utilize long-range, large-caliber weapons against the aircraft while they are in flight. Contour flying enables aircraft to take maximum advantage of terrain irregularities, thus gaining some protection from small-arms fire, enemy acquisition radar, and ground-to-air missiles. However, the primary consideration may be to avoid enemy small-arms fire by flying at a higher altitude. Altitude and flight area control must be planned for aircraft operating in the vicinity of the landing zone. Aircraft not directly involved in landing troops or providing aerial fire support, such as command and control helicopters, airborne FAC, airborne artillery observers, and medical evacuation helicopters, should remain at altitudes above or away from the flight path of the assault helicopters. Specific altitudes and flight areas may be assigned these supporting aircraft.

c. *Landing Zone Preparation*. The landing zone may be prepared by either aerial or ground artillery, USAF tactical air, attack or aerial field artillery helicopters, naval gunfire or any combination of the above.

(1) Fire and incendiary bombs are not normally used in the landing zone and its immediate vicinity just prior to landing. They may be used when required against appropriate targets, provided the airmobile task force commander has considered the possible undesirable fires and reduced visibility from smoke which may result from their use.

(2) Attack helicopters and/or air cavalry elements normally reconnoiter the landing zone prior to arrival of the lift element. They suppress and reconnoiter by fire around the zone and recommend final landing instructions.

(3) Attack helicopters and aerial field artillery can provide area coverage or neutralize observed enemy positions.

(4) Fire support preparations and tactics should be varied frequently. Preparations should be short and intensive.

(5) A deliberate smoke curtain may be dispensed from helicopters to conceal the arrival of the lift element. In addition, if enemy troops are in proximity to the landing zone, the enemy may be temporarily incapacitated during the landing operation by employment of CS munitions mixed with the smoke. Crew members and assault troops should wear protective masks when CS is employed.

d. *Landing*.

(1) In developing the landing plan, the airmobile task force commander must include guidance concerning action to be taken in the event the airmobile task force receives an unacceptable amount of ground fire just prior to landing.

(2) Preparations may be shifted rather than lifted as the assault formation approaches the landing zone. Necessary fire control can be accomplished by the FSCOORD.

(3) A simultaneous landing is desired to place the maximum number of troops on the ground, in a given area, in the shortest possible time.

(4) Landing zone size and shape or enemy action may dictate a formation change while on final approach.

(5) Upon landing, troops disembark immediately, hit the ground, wait for helicopters to depart, and then clear the landing zone, moving into the tactical formation called for by the commander's plan. At night, it is imperative that troops hit the ground and wait for the flight to depart the landing zone.

(6) If the ground force has patients to evacuate while the buildup is still in progress, they should be moved to a designated patient-collecting

point location. This procedure permits uninterrupted continuation of the lift.

(7) Whenever possible, heavy loads should be slung externally to avoid the difficulties encountered with internal offloading. Consideration must be given to the time required to clear heavy loads from small landing zones to avoid interference with subsequent lifts. Such loads (external and/or internal) should be programed for subsequent lifts.

(8) Ground commanders must insure that off-loaded personnel and equipment are quickly moved out of the landing zone. This is especially critical in a restricted landing zone.

(9) Air cavalry and/or other attack helicopters can be used to reconnoiter approach routes to the landing zone, screen and delay enemy movement, and provide limited on-call fire support for the ground force elements. Their activity is limited by the amount of fuel and ammunition they have remaining after escorting the lift. Close coordination by radio is essential for this type of operation.

7-41. Loading Plan

a. General. The loading plan is based on the air movement plan. The plan should be as simple as possible. For a small-scale operation, when no accompanying supplies and equipment are lifted, it may be only a matter of announcing where and at what time troops are to load. For a large-scale operation, loading may be complex enough to require written instructions as to the delivery of troops and equipment in the loading area, designation of loading sites, the time and priority of loading, and other details.

b. Briefing. Time and situation permitting, troops are briefed in detail on the landing.

c. Loading.

(1) In preparing loading plans, primary consideration is given to the mission. Tactical integrity is maintained and key personnel are distributed throughout the aircraft loads. Spare aircraft should be made available if possible. Loading plans must be consistent with the ground tactical plan and air movement plan on which they are based.

(2) The ground commander designates the sequence for movement of personnel, supplies, and equipment to the loading sites. Maximum security is enforced.

(3) If the pickup zone is secure, troops, supplies, and equipment should arrive in the loading area in sufficient time in advance of the arrival of aircraft to permit proper organization and break-

down of personnel and loads, and the completion of any required final coordination. This will insure rapid loading, and minimize confusion and ground time for aircraft. Further, timing should include immediate takeoff of aircraft subsequent to the loading of troops and equipment.

(4) The unit to be lifted provides all essential equipment and personnel for external loading (sling loading), including hookup teams. External-load helicopters normally are located at the rear of formations. (In some situations, all helicopters of the formation may pick up sling loads.) If simultaneous arrival of internal-load and external-load helicopters is desired, the external-load helicopters hook up (ideally in a separate part of the loading area) and depart before the faster internal-load helicopters in the formation.

7-42. Staging Plan

a. General. In the pickup zone, the ground force and aviation units are integrated into a tactical airmobile force. Last-minute planning adjustments are made, if necessary, by coordination between the airmobile task force commander and the aviation mission commander. The airmobile task force commander controls the operation until the last lift has been accomplished and aircraft are released.

b. Control. Control of movement into the staging area is essential in order to prevent congestion and confusion. The objective of any loading control should be to expeditiously load troops, supplies, and equipment. Pathfinder elements can provide air traffic control, and, consistent with unit SOP and requirements, they may assist the lifted unit in loading. Strict security precautions must be taken to insure the safety of ground convoys of troops and equipment in their movement to the staging area. Staging area support troops and the assault troops to be lifted out of the staging area may be airlifted to the staging area by helicopters or U.S. Air Force troop transports. Upon reaching the staging area, the various supporting elements (POL specialist, aircraft maintenance, ammunition resupply, attack helicopter ordinance, and medical aid stations) must move to preselected areas, and staging area security forces must take up positions. Command of aviation support elements may be vested in the aviation unit executive officer, while command of ground troop support elements may be vested in the ground unit executive officer.

7-43. Type of Airmobile Operations

a. General.

(1) Airmobile operations must contribute to

the success of the overall ground effort. Airmobile forces employed in deep objectives is done so with risk; however, opportunity for meaningful success against lightly held enemy rear installations such as logistic or nuclear weapons sites or command and control facilities can be achieved by emphasizing airmobility to attack these targets.

(2) The substantial mobility differential of the airmobile forces over a dismounted enemy force enables the airmobile commander to achieve surprise and deception, to operate to a greater depth within his area of operations, and to minimize his reserves.

(3) For a more complete discussion of the types of airmobile operations, see FM 57-35.

b. Offensive Operations. Airmobile operations can be conducted using all forms of maneuver and types of offensive operations. Airmobile operations are particularly effective during envelopment, pursuit, and exploitation.

c. Defensive Operations. Airmobile operations can be conducted during the conduct of an area or mobile defense. The movement of reserves, to include counterattack, increased capability of security forces, and increased potential for spoiling attacks, are a major contribution to the defense by airmobile forces.

d. Retrograde Operations. Airmobile operations can be conducted during all forms of retrograde operations. Airmobile forces participating in the delay can use terrain and time to maximum advantage. During the delay, restrictions on movement by ground or road net are overcome and judicious selection of terrain can force enemy units to deploy over unfavorable routes. See chapter 6 for a discussion of withdrawal and retirement.

e. Special Operations. Airmobile forces can often overcome the unique conditions inherent in operations conducted under special conditions. See the remainder of this chapter for a more complete discussion of special operations.

7-44. Sequence of an Airmobile Operation

a. General. The airmobile task force commander and his staff will follow a planned sequence of events to conduct an airmobile operation. The sequence that is provided in this section is typical of how an airmobile operation can be conducted. Unit SOP and other circumstances may vary the sequence described below. Smaller-scale operations may well follow a modified sequence, and some of the unrequired support may be eliminated. However, the timing and planning of a small-scale operation assumes no less importance.

b. Actions Prior to Staging.

(1) **General.** After receipt of a mission, the aviation element is responsible for establishing liaison with the supported unit. Initial liaison is normally effected by the aviation mission commander and his planning representative (liaison officer).

(2) **Command and staff reconnaissance.** Normally, the commanders of both the aviation element and the supported unit conduct a flight reconnaissance of the area of operation.

(3) **Planning.** The airmobile task force commander receives advice from the aviation mission commander and approves the concept of the airmobile task force movement.

(4) **Mission briefing.** A detailed briefing that includes all available intelligence information, the tactical ground plan, and staging plans is given to the ground units of the airmobile force. Essential information about the supporting aviation unit's plan and safety while operating in and around aircraft is included in the ground unit briefing. The members of the supporting aviation unit are briefed on the details of the aviation support and the ground tactical plan. Extensive use is made of checklists (FM 57-35) to insure that all unit members have essential information and that it is given in the same sequence to all units briefed.

(5) **Communications check.** Communications are checked prior to the operation by all participating agencies to insure net compatibility and that equipment is functioning. (This check should be conducted in a manner that will avoid compromise of the operation.)

(6) **Line-up of aircraft.** The supporting aviation unit line up the aircraft both on the ground prior to takeoff and in the air to insure that there is tactical integrity between the supported and aviation elements as planned.

(7) **Movement to the staging area.** Movement of the aviation unit to the staging area is accomplished by following flight routes which avoid enemy positions, do not interfere with friendly artillery fire, minimize enemy observation, and allow ease of navigation.

c. Staging and Loading.

(1) In areas of operations where there are no clearly defined battle lines, it is often necessary to establish forward logistical bases from which airmobile operations may be sustained. This applies to units operating at distances from primary bases which are beyond the practical turnaround range (or the radius of action) of the supporting aircraft. Small landing strips and highways (or in some cases, cleared open areas which must be pre-

pared immediately prior to the landing of large cargo aircraft) which will support a unit's base may be used for staging areas. All available cargo aircraft are used to provide the quantities of supplies necessary to conduct an airmobile operation. Volume of air traffic will be intense during peak periods in the staging area in preparation for the operation. Pathfinders or other air traffic control personnel will be required to control the landing, parking, and takeoff of aircraft. Stockpiling is normally accomplished only a matter of hours prior to the planned operational time in a secured area to preclude alerting the enemy to an impending large-scale airmobile operation.

(2) Commanders and staff officers coordinate and finalize plans and last minute details associated with the ground tactical plan. Confirmation of the following elements is essential prior to the beginning of the operation:

- (a) Formations.
- (b) Altitudes.
- (c) Routes.
- (d) Corridors.
- (e) Employment of prestrike suppressive fires.
- (f) Vector control of aircraft.
- (g) Alternate plans for routes, landing zones, fire support, and extraction.

(3) Units and equipment to be lifted will be organized and prepared to load, thus expediting the actual pickup operation. Flexibility on the part of all concerned is mandatory. In the event that density altitude prevents the lift of planned loads, units and equipment may have to be phased back at the last moment. However, tactical integrity for both lift and lifted units remains a prime consideration. Every effort must be made to minimize the aircraft time on ground. Positive control of aircraft and listed units is an absolute necessity at this crucial time. Pathfinders can provide this necessary control.

(4) Aircraft must be refueled and armed from prestocked items in accordance with the refueling and rearming plan. Lightweight, portable, rapid refueling systems hauled by medium and heavy helicopters are used whenever available.

(5) Unit staging may be accomplished during the conduct of normal operations. Actual pickup may be from the unit's location in the field, with multiple pickup zones used by battalions.

d. Air Movement Phase.

(1) A few minutes prior to the departure of the main body, the airmobile task force commander dispatches a reconnaissance element—

usually an air cavalry team or an attack helicopter fire team—to reconnoiter the intended flight route for enemy antiaircraft and ground positions. The results of this reconnaissance may be the determining factor for the commander to select an alternate route.

(2) The lift aircraft, escorted by attack helicopters, depart the stage field for the pickup zone.

(3) Preparatory fires are normally placed on known or suspected positions at the periphery of the intended landing sites. These fires may consist of integrated ground or aerial artillery, naval gunfire, tactical air, and attack helicopters. Preparatory fires precede the landing by airmobile forces by the minimum practical time. Air observation, troop lifts, and air strikes must be conducted as close to artillery fires as safety permits. Artillery fires may have to engage the enemy in any direction. For this purpose, artillery may be prepositioned by helicopter in forward secured areas. Aerial artillery may be available when direct support field artillery units are not within range of the objective area(s). Preparatory fires must be timely, accurate, functional, and continuous. Where possible, preparatory fires shift rather than lift. The fire support sequence normally is:

- (a) Tactical air.
- (b) Artillery and/or naval gunfire.
- (c) Aerial artillery.
- (d) Escort helicopter.

(4) The airmobile task force commander accompanied by his fire support coordinator and S-3, and the air mission commander are normally in position aboard command and control aircraft to control the air movement and direct fire support. An alternate command post group and aircraft are on standby to replace the primary elements to insure continuous command and control during the critical assault phase.

(5) Aerial fire support in the form of attack helicopters and aerial field artillery precede the airmobile task force into landing zones to provide last minute suppressive fires.

(6) The lead reconnaissance element, ideally air cavalry, immediately follows the aerial fire support elements. These helicopters perform a simultaneous suppressive fire strike and low-level reconnaissance seconds ahead of the airmobile task force landing to insure that any enemy forces in the landing area have been neutralized. If enemy fire or forces are located, additional suppressive fires may be brought to bear on enemy positions, or an alternate landing zone may be used.

e. Landing Phase.

(1) The lift aircraft modify the flight formation, if necessary, for the landing. The landing zone touchdown area is normally marked by the pathfinder or reconnaissance element to positively identify the zone.

(2) Troop leaders on board the lift aircraft are given final instructions to include direction of landing. Troop leaders should be seated to permit observation of the landing zone during the approach so that they are oriented upon landing and able to pass instructions to the troops whether to dismount by jumping from a hover or to wait until touchdown. Troops must dismount rapidly to designated assembly areas. Objective areas must be seized aggressively to reduce the vulnerability of the ground force during this critical phase. Designated attack helicopters escort the assault helicopters from the landing zone. Aerial artillery remain on station during the entire operation to provide immediately responsive aerial fire support to the ground troops. Aircraft pilots must be responsive to directions from the ground commander or control element when approaching and leaving an area to avoid friendly and enemy ground fire.

(3) Aeromedical evacuation helicopters are introduced as required to rapidly evacuate patients. Other utility or transport-type aircraft that have space available can be used to evacuate prisoners of war from the landing zone—as long as proper security precautions are taken aboard the aircraft.

(4) Based on prearranged plans, medium and heavy helicopters evacuate damaged aircraft from the landing zone to prevent further damage and to clear the landing zone for subsequent lifts.

(5) Supplies to include ammunition, explosive demolitions, pyrotechnic munitions, and water are

of critical importance to the airmobile task force. These supplies, particularly ammunition, are delivered early in the operation. Aircraft control and logistics elements can provide the necessary control, segregation, and distribution of supplies in the landing site. Small sections of bridging may be slingloaded by helicopters into areas where bridging will facilitate ground troop movement over streams and small rivers.

(6) A reserve consisting of one or more rifle companies mounted in lift helicopters can be held in readiness on station nearby to provide the necessary reserve element. On occasion, elements smaller than company size may constitute a reaction force. Unengaged or least engaged committed elements may be designated as reserve. This force can rapidly mount a counterattack, reinforce, or perform other on-call missions.

(7) In airmobile operations involving host country forces and U.S. aviation units, at least two U.S. advisors with appropriate FM radios land with the first serial to insure continuous communication through the advisory net, with the air mission commander, and with fire support elements.

f. Subsequent Operations.

(1) After seizing the objective area, an airmobile force may defend, linkup with a surface force, conduct retrograde operations, or conduct further offensive operations. If the subsequent actions involve defense or conduct of further offensive operations, there must be a buildup of troops, supplies, equipment, and facilities essential to accomplishment of the mission. For considerations during withdrawal (extraction), see paragraph 6-11.

(2) When enemy contact is light, medium and heavy cargo helicopters can be used to rapidly reinforce, replace, or extract an airmobile force.

Section IX. STABILITY OPERATIONS

7-45. General

a. U.S. Army forces participate in stability operations as part of an overall U.S. effort in foreign internal defense and internal development. Stability operations are defined as that type of internal defense and internal development operations and assistance provided by the armed forces to maintain, restore, or establish a climate of order within which responsible government can function effectively and without which progress cannot be achieved. Stability operations roles include tactical operations, advisory assistance, in-

telligence, psychological operations (PSYOP), civil affairs, and populace and resources control. FM 31-23 provides general doctrine for U.S. Army forces in stability operations.

b. U.S. Army infantry-type units participate in stability operations by conducting tactical operations in campaigns that are part of overall national programs. Infantry units may be tasked with providing advice, assistance, or support to host country regular armed forces or paramilitary forces. Close cooperation and coordination is required with military and civilian agencies of the

host country and representatives of U.S. civilian agencies which are involved in internal defense and internal development. Participation by infantry in other stability operations roles will normally complement the mission assigned in the advisory assistance or tactical operations roles.

c. In addition to the military aspects, major consideration must be given to economic, political, sociological, and other environmental factors which will affect operations. Language difficulties, unfamiliar customs, and religious differences must be considered. The early stage of development and method of functioning of host country political and administrative agencies may require U.S. unit commanders to coordinate with many officials to assure successful operations.

d. The organization of the battalion may be tailored because of physical environmental conditions and the specific mission. Stability operations may be conducted in both rural and urban areas and in terrain such as mountains, plains, deltas, deserts, or jungles.

7-46. Tactical Operations

a. While most tactics and techniques discussed in this manual are generally applicable to infantry battalions participating in stability operations, there are additional considerations imposed upon forces operating against guerrilla forces in an internal defense and internal development environment. Counterguerrilla operations are covered in detail in FM 31-16.

b. Infantry battalion missions will include closing with and destroying enemy forces, destroying and denying the enemy use of base areas, reconnaissance, defense of friendly installations and areas, and similar missions.

c. Close coordination must be effected with host country forces participating in or affected by operations.

d. Host country representation in the form of police or other civil authority may be desirable and available.

e. Emphasis must be placed on detailed planning of small decentralized tactical operations, command and control over extended distances, and contingency planning for employment of reserves and fire support.

f. Reconnaissance-in-force operations must be stressed to develop enemy information since guerrillas will present elusive targets to avoid the risk of decisive combat. Heavily fortified guerrilla defenses in dense jungle are often so well concealed

that guerrilla presence is not known until physically encountered at close range. In this situation, use will not have been made of preparatory fires to soften enemy defensive positions. The use of massive supporting fires at this time is usually necessary to defeat the guerrilla and destroy his position without suffering undue friendly casualties. Once such defenses are encountered, the commander may have to adjust his forward disposition while maintaining contact, in order to permit extensive employment of supporting fires. Simultaneously, additional maneuver forces are committed and supporting fires are used to block the enemy's possible routes of withdrawal. When the preparatory fires have been completed, forces are maneuvered to defeat him in detail.

g. The guerrilla must be kept under constant pressure. This is facilitated by a high degree of mobility coupled with secrecy and surprise.

h. The employment of fire support and maneuver must be conditioned by the requirement not to harm the population.

i. High morale and the constant practice of high standards of combat discipline must be maintained during continuous operations which may involve but little actual combat.

j. The battalion will normally be employed as a subordinate element of a brigade. It may operate directly under division control or with appropriate augmentation as an independent combat force.

7-47. Advisory Assistance

a. The infantry battalion may be tasked to provide mobile training teams (MTT) which provide advice and assistance to host country regular armed forces or paramilitary forces.

b. Specially designated backup force battalions may be required to deploy MTT to a host country. Personnel selected for these teams should receive predeployment training which includes area orientation and instructor training, and which provides at least a minimal language qualification. FM 31-22 covers the organization, training, missions, and concept of employment of backup forces.

c. When an entire battalion is committed to a host country, the mission to furnish MTT must be weighed against the corresponding reduction of its capability to conduct tactical operations.

7-48. Intelligence

a. Combat intelligence and counterintelligence capabilities of the battalion must be coordinated with those of the host country military and non-

military agencies as well as other U.S. sources. Area coordination centers (ACC) should be established by the host country to insure timely coordination, dissemination, and exploitation of intelligence. FM 30-31 and FM 30-31A cover stability operations intelligence in detail.

b. The battalion intelligence section may require augmentation to provide adequate personnel to maintain liaison with established coordination centers and collection agencies.

c. General and specific knowledge will be required for a comparatively large area and will encompass the full range of interests associated with internal defense and internal development.

d. The enemy's infrastructure is a primary target of intelligence effort, and it must be attacked and destroyed to effectively neutralize him.

e. Success in stability operations will accrue to the force which receives and best utilizes timely and accurate information from the local population.

7-49. Psychological Operations

a. Psychological operations acquire increased significance in stability operations because of the requirement to gain the support of the population for the host country government.

b. The battalion's psychological operations must be in consonance with policy, guidance, and objectives of national level plans.

c. Psychological impact is a consideration in all operations and actions.

d. The S5 has staff responsibility for PSYOP activities.

7-50. Civil Affairs

a. Civil affairs include any activity of a command which embraces the relationship between military forces and the civil authorities and the people. Infantry units must consider actions to be taken to reduce the possibility of civilian interference in tactical operations since these units may frequently be involved in the movement and temporary care of large numbers of refugees. Military civic action and populace and resources control operations are other civil affairs activities in which the battalion will often be engaged. The careful fostering of good civil-military relations is an important aspect of stability operations.

b. The concept of military civic action is the use of preponderantly indigenous forces on projects useful to the local population at all levels in such

fields as education, training, public works, agriculture, transportation, communications, sanitation, and other projects which would also serve to improve the standing of the indigenous forces with the population. When U.S. stability operations forces engage in military civic action, care must be taken to insure projects are properly coordinated with local officials and do not conflict with overall internal development projects or programs. The S5 has staff responsibility for coordination of military civic action projects.

c. Civil-military projects which are undertaken solely to improve the image of the military forces and foster goodwill with the population may serve to replace or augment military civic action projects. Tactical requirements, time, availability of materiel, or other considerations may make these projects more feasible than the developmental ones of military civic action.

7-51. Populace and Resources Control

Infantry units participate in populace and resources control operations in close coordination with host country military or civil authorities. Tactical operations may be conducted in support of host country police or other civil security organizations conducting operations.

7-52. Battalion Organization and Employment

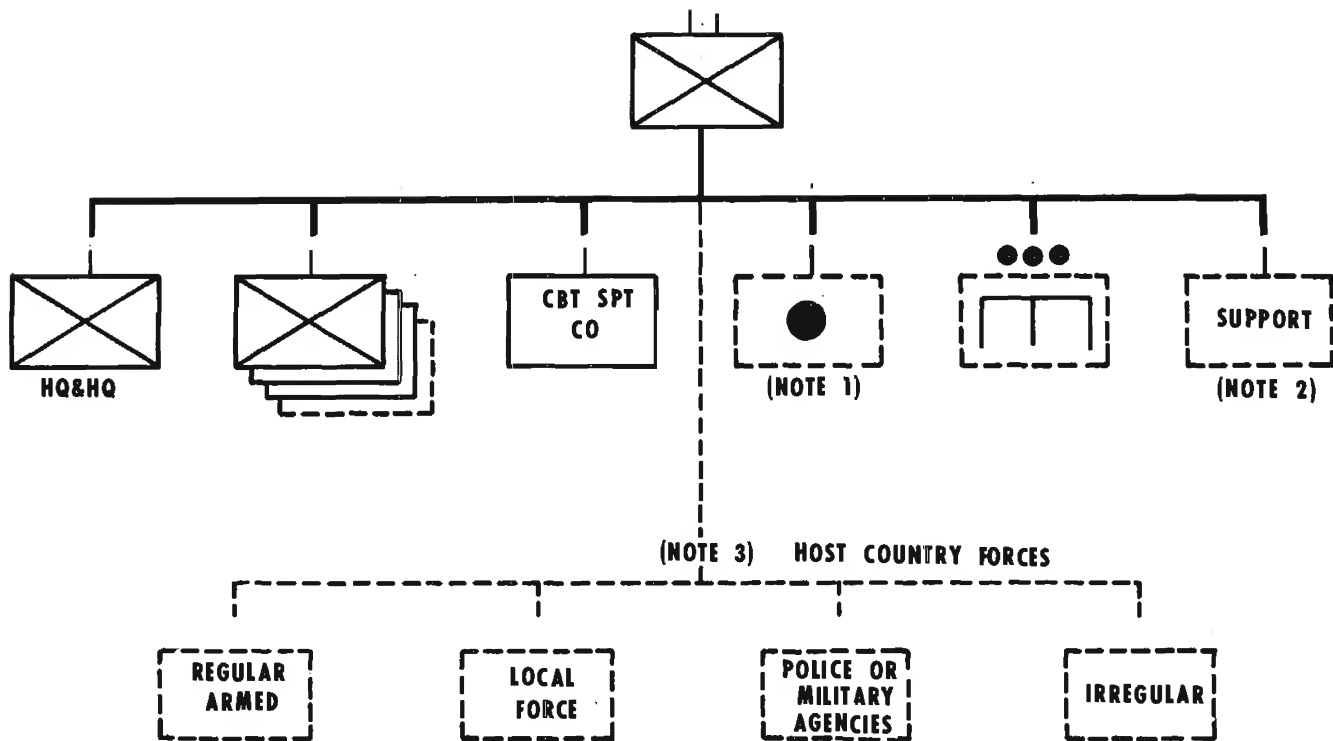
a. *Organization.* The infantry battalions provide a versatile force to combat guerrillas with a minimum of reorganization. The command structure of the battalion is designed to accept augmentation. (See figure 7-9.)

b. *Type Battalion Employment Consideration.*

(1) *Infantry battalion employment.* The infantry battalion is capable of accomplishing a variety of tasks by utilizing varied but appropriate mobility and combat power from organic and supporting forces.

(2) *Airborne infantry battalion employment.* The airborne battalion's capability for vertical entry into the battle area or by airlanding makes this unit highly suitable for offensive operations. Airborne units are easily adapted for employment by airmobile means if sufficient aviation support is provided.

(3) *Mechanized infantry battalion employment.* The mechanized infantry battalion may be assigned independent missions or operate as part of a combined force. Attack and pursuit are primary roles for mechanized infantry when mounted in carriers. These roles may be further amplified if mechanized infantry is combined with armor units, thus taking advantage of the shock effect of increased mobility and firepower. When



AUGMENTATIONS

MILITARY INTELLIGENCE
 PSYCHOLOGICAL OPERATIONS
 CIVIL AFFAIRS
 SIGNAL
 CHEMICAL
 MEDICAL
 MILITARY POLICE
 GROUND TRANSPORTATION
 ARMY SECURITY AGENCY
 SCOUT DOGS
 COMBAT TRACKER TEAMS
 AVIATION SUPPORT
 INDIGENOUS (INTERPRETERS,
 GUIDES, DEFECTORS, ETC.)

NOTES

1. NORMALLY 105MM HOWITZERS BUT HEAVY MORTARS MAY BE SUBSTITUTED. ARTILLERY MAY BE ATTACHED OR DS.
2. CAN BE PROVIDED FROM A PROVISIONALLY ORGANIZED SUPPORT BATTALION AT BRIGADE OR FROM DIVISION.
3. HOST COUNTRY FORCES MAY BE ATTACHED, UNDER OPERATIONAL CONTROL, OR ONLY COOPERATE THROUGH CLOSE COORDINATION. COMMAND STRUCTURE WILL BE ESTABLISHED BY A HIGHER HEADQUARTERS.

Figure 7-9. Type infantry battalion task force for stability operations.

dismounted or separated from the carriers, mechanized infantry conducts offensive operations generally in the same manner as other infantry units (chap 4). When a combination of techniques of employment is required, the battalion may be used as, or in conjunction with, an airmobile force. Maximum use is made of carrier-mounted weapons. In order to take advantage of the firepower, mobility, and protection capabilities of the carrier, mechanized infantry normally remains mounted until forced to dismount by enemy action or terrain.

(4) *Airmobile infantry battalion employment.* Airmobile units are well suited for recon-

naissance-in-force over large areas. Airmobile infantry battalions compensate for their lack of organic combat power by their high degree of mobility and by emphasizing the role of supporting fires in engagements.

(5) *Light infantry battalion employment.* The light infantry battalion, because of its organization, provides a force which can capitalize on all forms of mobility. The battalion is especially adapted for airmobile missions when provided adequate aviation support. The light infantry battalion overcomes its lack of organic combat power by greater utilization of supporting fires.

c. *Operational Considerations.* The nature of

stability operations against an elusive enemy requires the following operational considerations:

- (1) Constant pressure.
- (2) Continuous offensive operations to include reconnaissance-in-force when meaningful information of the enemy is lacking.
- (3) Secrecy and surprise.
- (4) High mobility.
- (5) Accurate and timely intelligence.
- (6) Civilian support and protection.

d. Methods of Operation. The methods employed by the battalion include:

- (1) Consideration of the enemy force and not the terrain as the objective.
- (2) The absence of front and rear lines requires that priority of effort be assigned within the battalion area of responsibility.
- (3) Assignment of operational areas when possible along political/civil boundaries rather than conventional linear boundaries.
- (4) The battalion must maintain maximum offensive capability by resisting fragmentation into company or platoon-size elements for defensive tasks which can and should be conducted by host country paramilitary forces.

e. Offensive Operations. Offensive operations in stability operations have as their purpose the destruction, neutralization, or harassment of guerrilla forces. These operations are characterized by gaining and maintaining contact with the guerrilla and subsequently destroying him.

f. Defensive Operations. Defensive operations in stability operations provide the base from which offensive operations are launched and can be instrumental in gaining the support of the population.

g. Security Operations. Security operations provide continuous, all-round security for the bat-

talion, other forces, and installations in the area for which the battalion commander is responsible. Appropriate actions taken to guard against subversion, espionage, sabotage, terrorism, and tactical surprise insure freedom of maneuver or action in response to enemy threats.

h. Reconnaissance Operations. Reconnaissance operations are a directed effort to collect information of the enemy and the area of operations by ground and air activities. The purpose of these operations is to produce combat intelligence to provide the basis for the planning and conduct of combat operations.

i. Retrograde Operations. Retrograde operations in stability operations are most usually retirements; however, withdrawals and delaying actions may become more commonplace as the guerrilla force develops militarily.

j. Commander's Guidance. The commander's guidance in stability operations is often more detailed and comprehensive than in limited or general war. Planning for probable missions should precede the receipt of a specific mission.

k. Estimates. Staff and commander's estimates should be as detailed as possible and reflect the civil as well as the military situation. The techniques for preparing staff and commander's estimates for conventional situations apply except that weather and terrain; the population; the guerrilla force; host country, U.S., and allied forces; and other factors concerning policies and legal status of the people and the guerrilla force are emphasized.

l. Decision. A decision will be reached in accordance with troop-leading procedures and techniques outlined in chapter 2 and appendix L, and in FM 101-5.

Section X. UNCONVENTIONAL WARFARE AND COLD-WAR OPERATIONS

7-53. Unconventional Warfare Operations

a. General. Unconventional warfare (UW) consists of military, political, psychological, or economic actions of a covert, clandestine, or overt nature within areas under the actual or potential control or influence of a force or state whose interests and objectives are contrary to those of the U.S. These actions are conducted unilaterally by U.S. resources, or in conjunction with indigenous assets, and avoids formal military confrontation.

b. Concepts.

- (1) UW is conducted to exploit military, pol-

itical, economic, or psychological vulnerabilities of an enemy. It is implemented by providing support and direction to indigenous resistance forces where appropriate, or by unilateral operations by U.S. UW forces. Its conduct involves the application of guerrilla warfare and selected aspects of subversion and psychological operations in support of national objectives.

(2) In an established theater of operations in which significant ground operations by a conventional U.S. military force will be undertaken, UW is conducted primarily to complement, support, or extend conventional operations.

(a) Operational control of U.S.-sponsored guerrilla forces is exercised by the commander of a unified command through a theater unconventional warfare command organization. When UW operational areas fall within the area of influence of advancing major tactical commands, operational control of affected guerrilla forces usually is transferred to the tactical command concerned. In conjunction with this transfer, U.S. UW forces are attached to the tactical command headquarters to provide liaison, and to assist in the employment of the guerrilla force.

(b) The major tactical commander, such as a field army commander, may assign operational control of the guerrilla force to his subordinate commands. Generally, such delegation of control is not made below division level.

c. Missions To Assist Ground Combat Forces. As the major ground forces' area of influence (area in which the commander, by means available to him, is capable of directly affecting operations) nears the UW operational area, guerrilla operations are expanded to assist their advance. Guerrilla forces can complement all forms of conventional force offensive and defensive operations in varying degrees. General missions which guerrilla forces can accomplish are:

(1) Conduct reconnaissance and maintain surveillance of critical routes, areas, and installations.

(2) Provide current intelligence.

(3) Support friendly cover and deception operations.

(4) Divert enemy units from an objective area by accelerated guerrilla activity in other areas.

(5) Interdict or block approaches to an objective area.

(6) Occupy key terrain features and hold them for a limited time.

(7) Seize key installations to prevent destruction by the enemy, e.g., bridges, tunnels, dams, and power facilities.

(8) Attack enemy forces and facilities.

(9) Provide guides to friendly units.

(10) Assist in containing bypassed enemy units.

(11) Assist in recovery of prisoners and stragglers.

(12) Assist in control of civilians.

7-54. Cold War Operations

a. Characteristics. Cold war operations are necessitated by a direct threat to U.S. interests by acts of a hostile power. These acts include illegal occupation, subversion, or coercion of friendly forces; a show of force; or the establishment of hostile military forces near U.S. territory. The scope of military operations in cold war may range from incidents between regular forces to actions against irregular forces.

b. Participation of U.S. Forces. Cold war operations may result from alliance or coalition agreements, or may be undertaken unilaterally. Military forces participate in these operations only by specific orders. Within the broad scope of cold war operations, military actions may be designed to:

(1) Encourage a weak and faltering government.

(2) Stabilize a restless area.

(3) Deter or thwart aggression.

(4) Reinforce a threatened area.

(5) Check or counter aggressive moves by opposing powers.

(6) Maintain or restore order.

c. Missions. Missions assigned an infantry battalion participating in cold war operations include:

(1) Show of force.

(2) Truce enforcement.

(3) International police action.

(4) Legal occupation.

(5) Stability operations.

APPENDIX A

REFERENCES

A-1. Army Regulations (AR)

310-25	Dictionary of United States Army Terms.
310-50	Authorized Abbreviations and Brevity Codes.
385-63	Regulations for Firing Ammunition for Training, Target Practice, and Combat.
735-35	Supply Procedures for TOE and TOA Units or Activities.
750-5	Organization, Policies, and Responsibilities for Maintenance Operations.
750-8	Command Maintenance Management Inspections.

A-2. Field Manuals (FM)

1-5	Aviation Company.
1-15	Division Aviation Battalion and Group.
1-60	Army Air Traffic Operations.
1-100	Army Aviation Utilization.
1-105	Army Aviation Techniques and Procedures.
3-10	Employment of Chemical and Biological Agents.
3-12	Operational Aspects of Radiological Defense.
3-50	Chemical Smoke Generator Units and Smoke Operations.
5-1	Engineer Troop Organizations and Operations.
5-15	Field Fortifications.
5-20	Camouflage.
5-25	Explosives and Demolitions.
5-26	Employment of Atomic Demolition Munitions (ADM).
5-36	Route Reconnaissance and Classification.
5-135	Engineer Battalion, Armored, Infantry, and Infantry (Mechanized) Divisions.
5-136	Engineer Battalions, Airborne and Airmobile Divisions.
6-20-1	Field Artillery Tactics.
6-20-2	Field Artillery Techniques.
6-40	Field Artillery Cannon Gunnery.
6-115	The Field Artillery Searchlight Battery.
6-140	Field Artillery Cannon Battalions and Batteries.
*7-11	Rifle Company, Infantry, Airborne, and Mechanized.
*7-15	Rifle Platoon and Squads, Infantry, Airborne, and Mechanized.
7-30	The Infantry Brigades.
8-15	Medical Service in Divisions, Separate Brigades, and the Armored Cavalry Regiment.
9-6	Ammunition Service in the Theater of Operations.
11-50	Signal Battalion, Armored, Infantry, and Infantry (Mechanized) Divisions.
11-57	Signal Battalion, Airborne Division.
17-1	Armor Operations.
17-15	Tank Units, Platoon, Company, and Battalion.
17-30	The Armored Brigade.
17-36	Divisional Armored and Air Cavalry Units.

*To be superseded by FM 7-10, The Rifle Company, Platoons, and Squads.

19-40	Enemy Prisoners of War and Civilian Internees.
20-32	Land Mine Warfare.
20-33	Combat Flame Operations.
20-60	Battlefield Illumination.
21-11	First Aid for Soldiers.
21-18	Foot Marches.
21-30	Military Symbols.
21-40	Chemical, Biological, Radiological and Nuclear Defense.
21-41	Soldier's Handbook for Defense Against Chemical and Biological Operations and Nuclear Warfare.
21-48	Chemical, Biological, and Radiological (CBR), and Nuclear Defense Training Exercises.
21-60	Visual Signals.
21-76	Survival, Evasion, and Escape.
24-1	Tactical Communication Doctrine.
27-10	The Law of Land Warfare.
29-30	Maintenance Battalion and Company Operations in Divisions and Separate Brigades.
29-50	Supply and Services in Divisions and Separate Brigades.
30-5	Combat Intelligence.
30-9	Military Intelligence Battalion, Field Army.
30-15	Intelligence Interrogation.
30-20	Aerial Surveillance—Reconnaissance, Field Army.
(C) 30-31	Stability Operations—Intelligence (U).
(S) 30-31A	Stability Operations—Intelligence Collection (U).
31-10	Denial Operations and Barriers.
31-11	Doctrine for Amphibious Operations.
31-12	Army Forces in Amphibious Operations (The Army Landing Force).
31-16	Counter guerrilla Operations.
31-18	Long-Range Reconnaissance Ranger Company.
31-20	Special Forces Operational Techniques.
(C) 31-20A	Special Forces Operational Techniques (U).
31-21	Special Forces Operations—U.S. Army Doctrine.
(S) 31-21A	Special Forces Operations—U.S. Army Doctrine (U).
31-22	U.S. Army Counterinsurgency Forces.
(S) 31-22A	U.S. Army Counterinsurgency Forces (U).
31-23	Stability Operations, U.S. Army Doctrine.
31-25	Desert Operations.
31-35	Jungle Operations.
31-36 (Test)	Night Operations.
(C) 31-40	Tactical Cover and Deception (U).
31-45	Explosive Ordnance Disposal Service.
31-50	Combat in Fortified and Built-up Areas.
31-60	River-Crossing Operations.
31-70	Basic Cold Weather Manual.
31-71	Northern Operations.
31-72	Mountain Operations.
31-75 (Test)	Riverine Operations.
(S) 32-10	United States Army Security Agency in Support of a Field Army (U).
(C) 32-20	Electronic Warfare (Ground-based) (U).
33-1	Psychological Operations, U.S. Army Doctrine.
41-5	Joint Manual for Civil Affairs.
41-10	Civil Affairs Operations.
44-1	U.S. Army Air Defense Artillery Employment.
44-2	Air Defense Artillery Employment, Automatic Weapons, M42/M55.
44-3	Air Defense Artillery Employment, Chaparral/Vulcan.
44-30	Visual Aircraft Recognition.

54-2	The Division Support Command and Separate Brigade Support Battalion.
55-30	Army Motor Transport Operations.
57-1	U.S. Army/U.S. Air Force Doctrine For Airborne Operations.
57-35	Airmobile Operations.
57-38	Pathfinder Operations.
61-24	Division Communications.
61-100	The Division.
100-5	Operations of Army Forces in the Field.
100-10	Combat Service Support.
(C) 100-20	Field Service Regulations—Internal Defense and Development (U).
101-5	Staff Officers' Field Manual: Staff Organization and Procedure.
101-10-1	Staff Officers' Field Manual, Organizational, Technical, and Logistical Data.
101-40	Armed Forces Doctrine for Chemical and Biological Weapons Employment and Defense.
101-31-1	Staff Officers' Field Manual: Nuclear Weapons Employment Doctrine and Procedures.

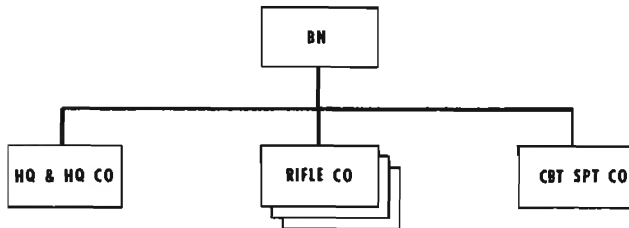
A-3. Training Circulars (TC)

3-16	Employment of Riot Control Agents, Flame, Smoke, Anti-Plant Agents, and Personnel Detectors in Counterguerrilla Operations.
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A-4. Department of the Army Pamphlets (DA Pam)

108-1	Index of Army Motion Pictures and Related Audio-Visual Aids.
310-3	Index of Doctrinal, Training, and Organizational Publications.
700-2	Commander's Supply and Maintenance Handbook.
750-1	Preventive Maintenance Guide for Commanders.

APPENDIX B ORGANIZATION CHARTS



B-1. Infantry, mechanized infantry, airmobile infantry, and infantry battalion.

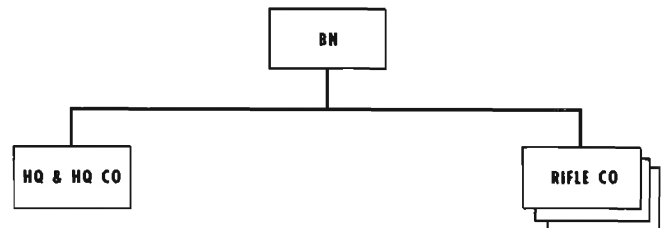


Figure B-2. Airborne infantry battalion.

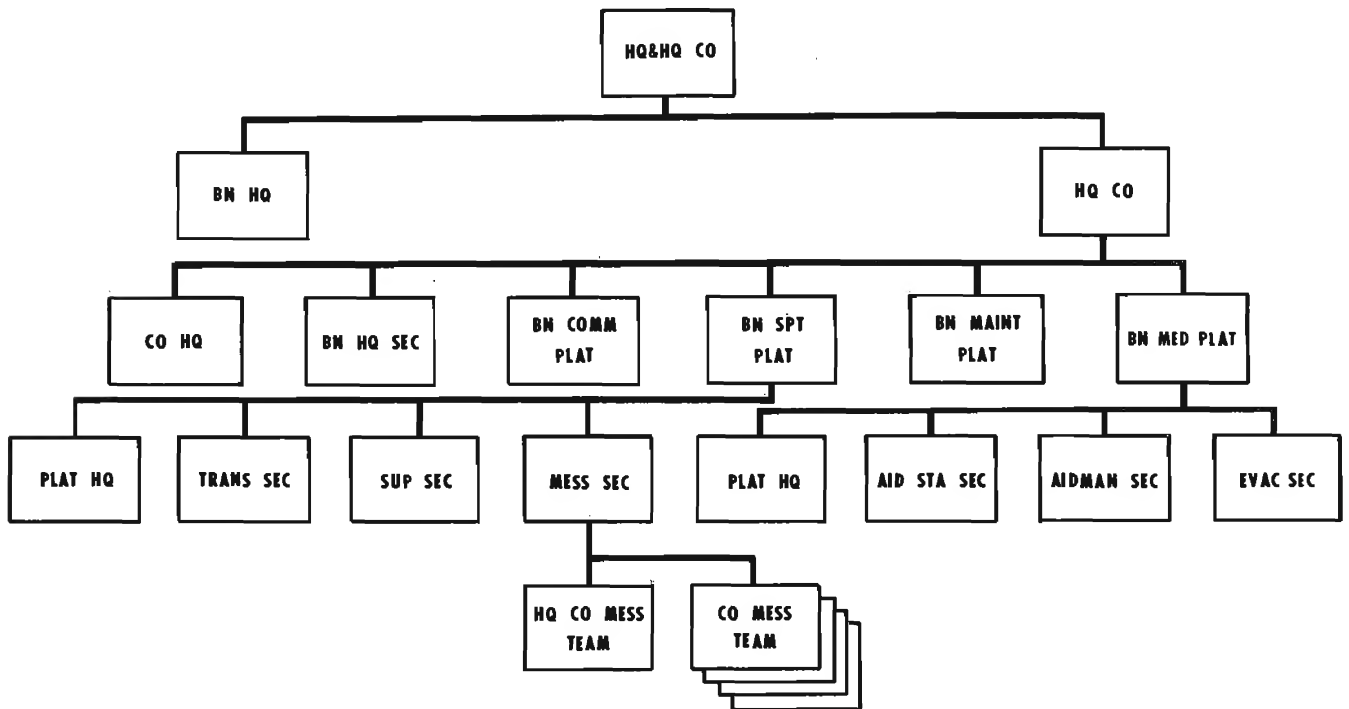


Figure B-3. Headquarters and headquarters company, infantry battalion.

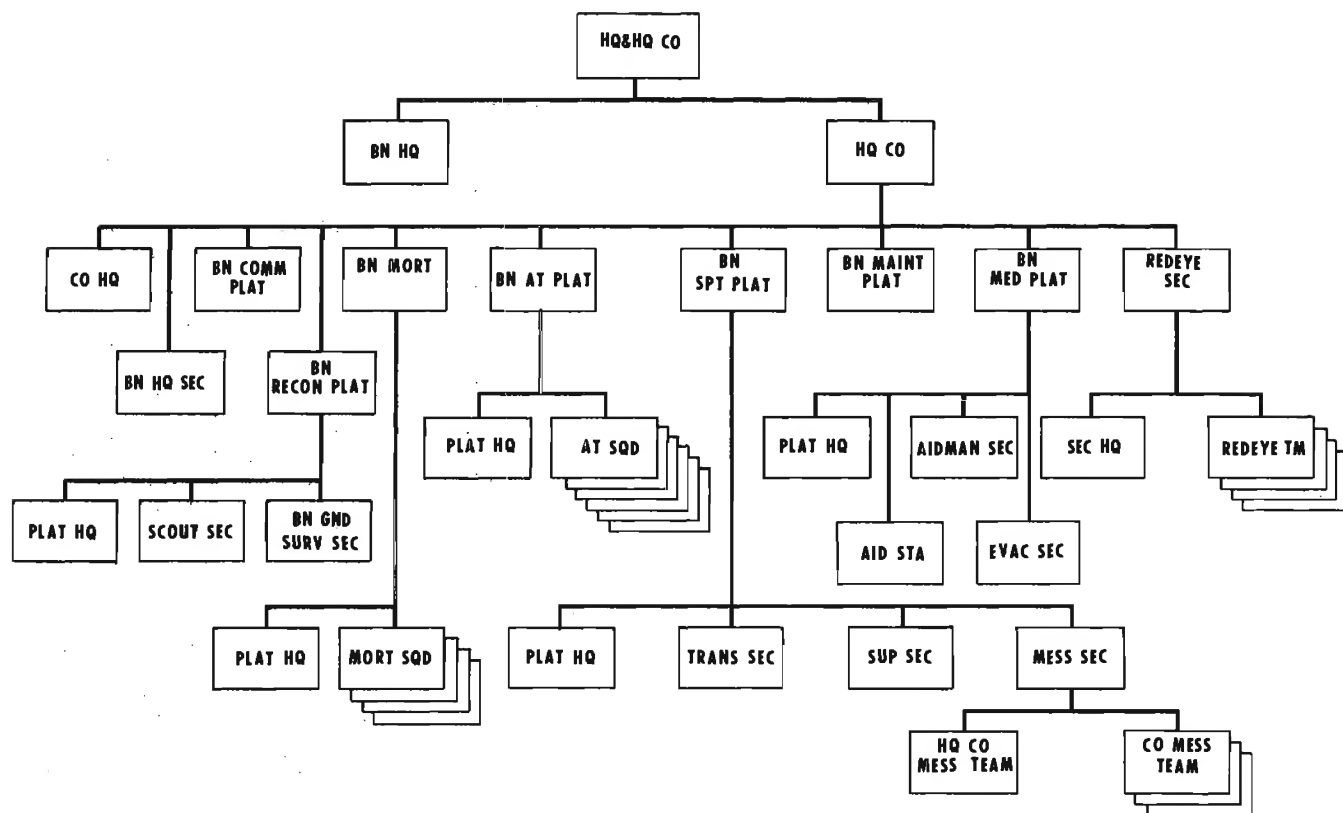


Figure B-4. Headquarters and headquarters company, airborne infantry battalion.

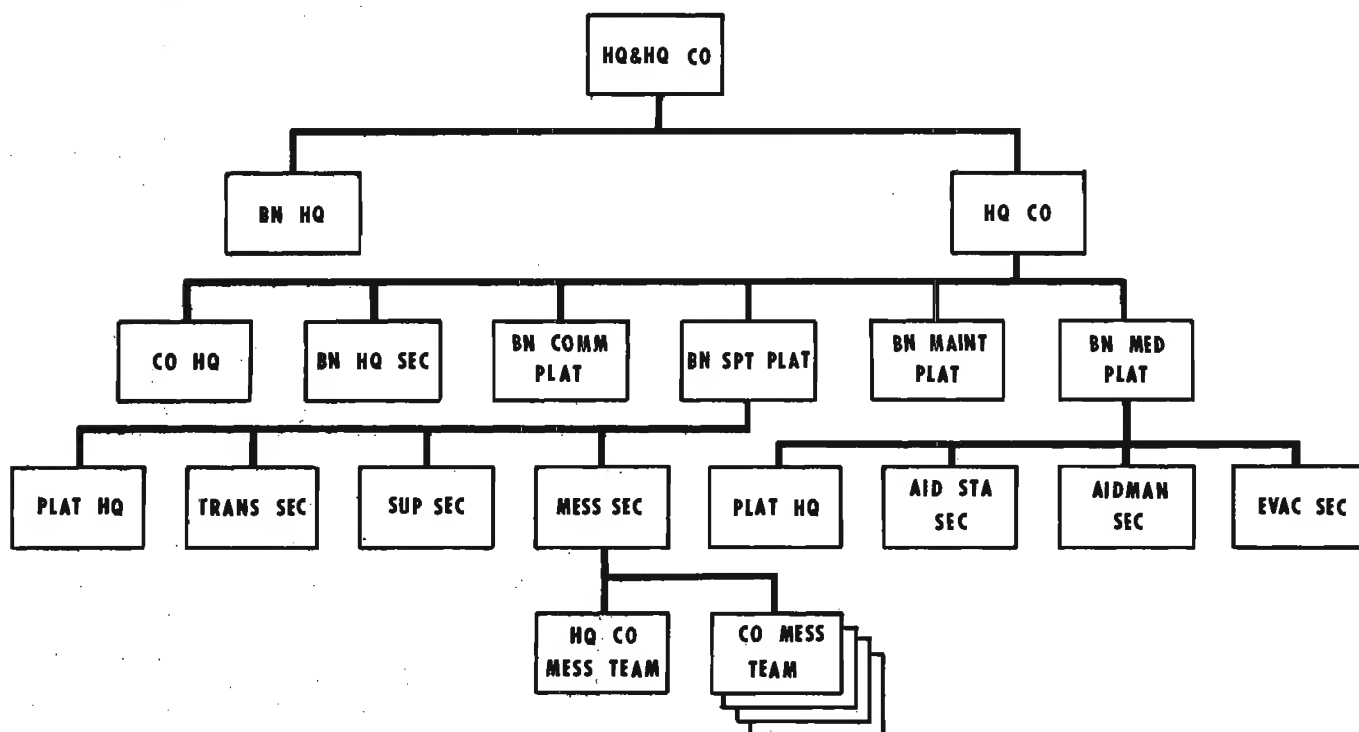


Figure B-5. Headquarters and headquarters company, mechanized infantry battalion.

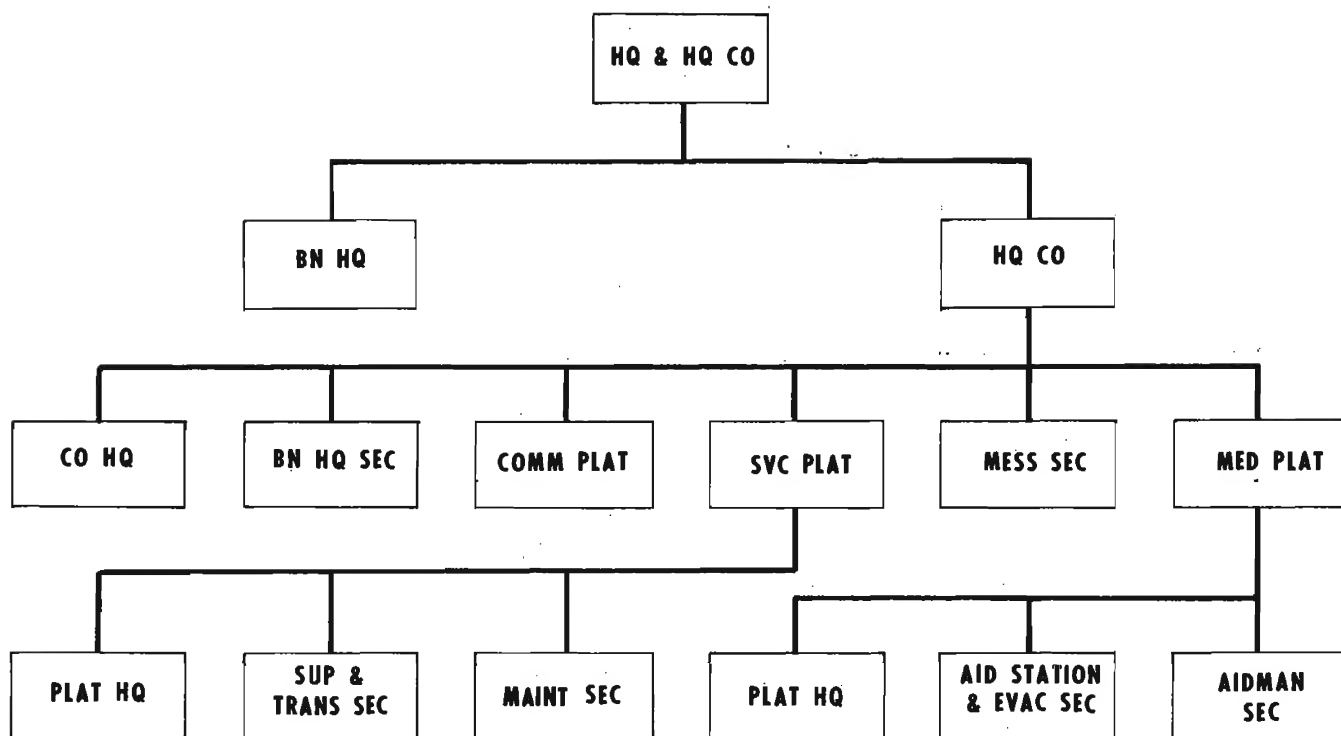


Figure B-6. Headquarters and headquarters company, airmobile infantry and light infantry battalion.

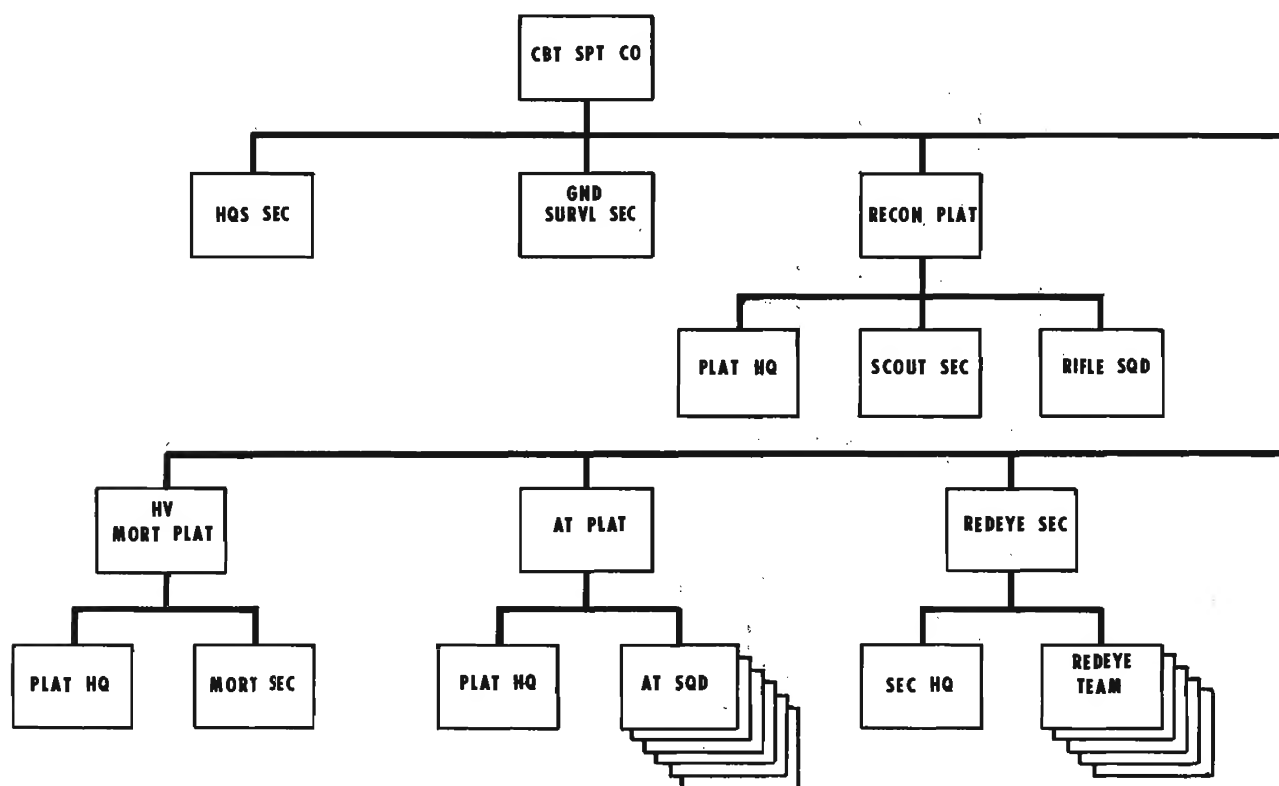


Figure B-7. Combat support company, infantry battalion.

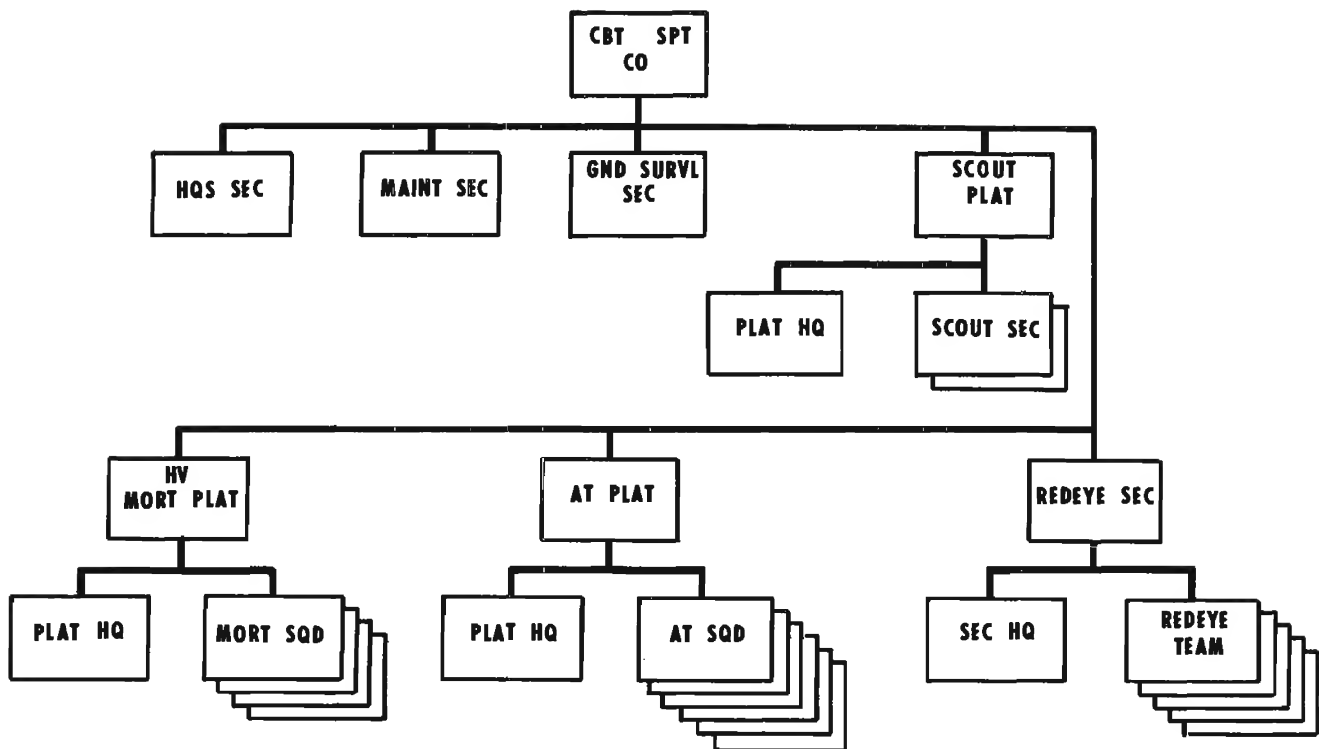
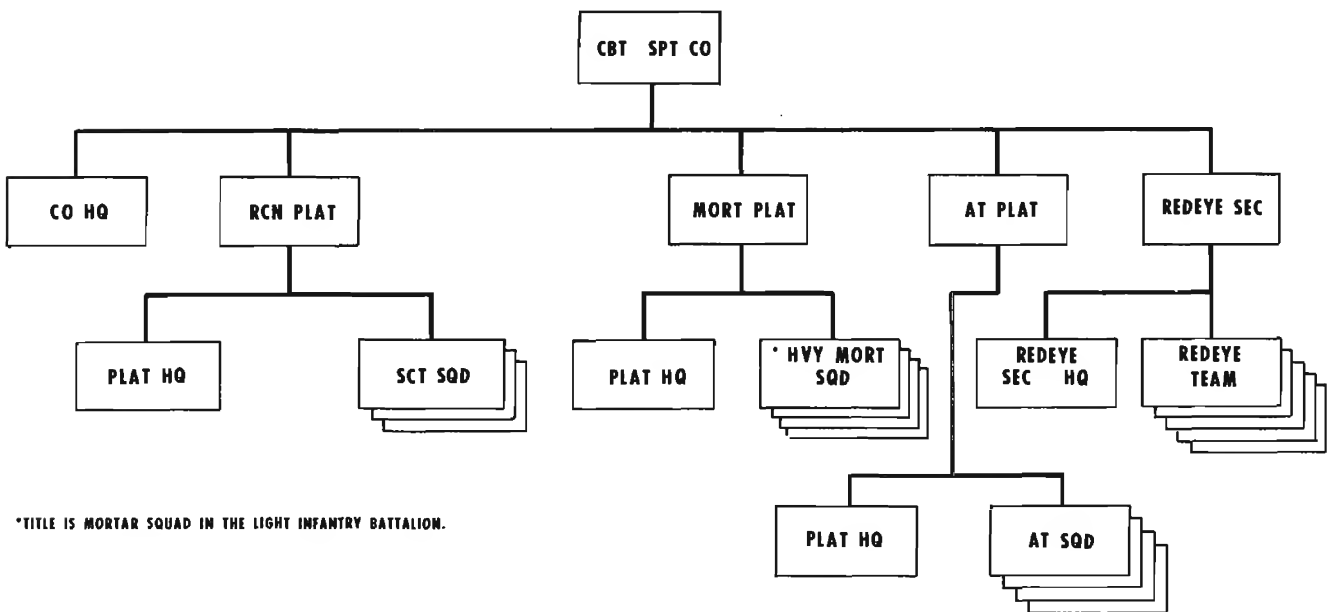


Figure B-8. Combat support company, mechanized infantry battalion.



*TITLE IS MORTAR SQUAD IN THE LIGHT INFANTRY BATTALION.

Figure B-9. Combat support company, airmobile infantry and light infantry battalion.

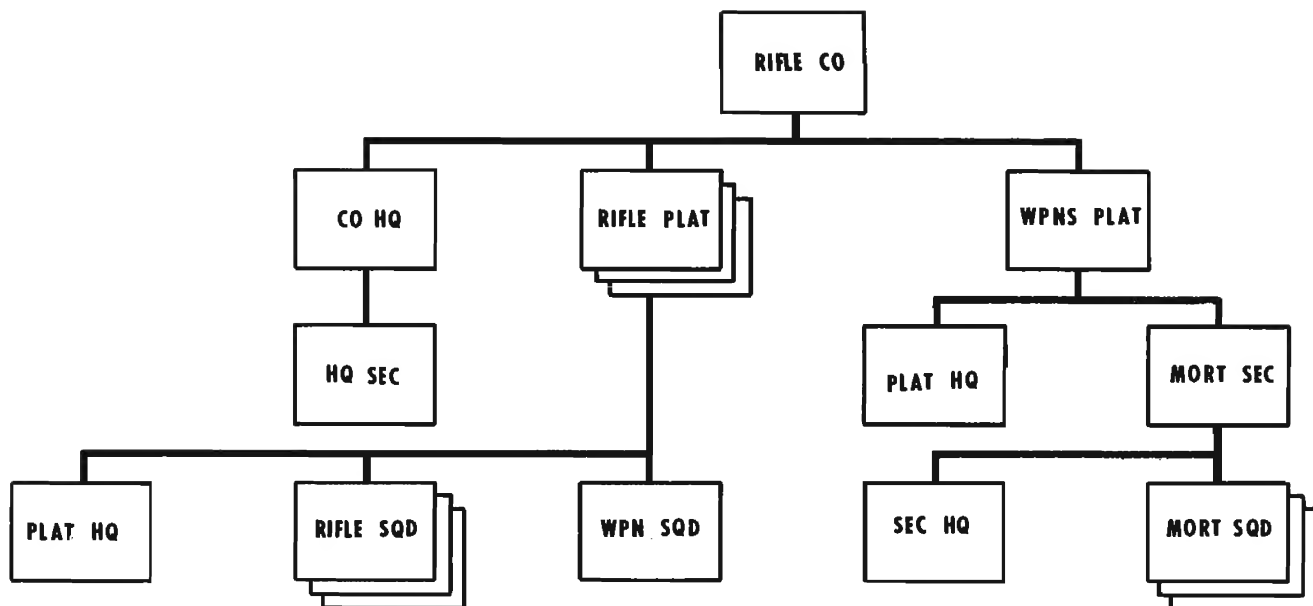


Figure B-10. Rifle company, infantry battalion.

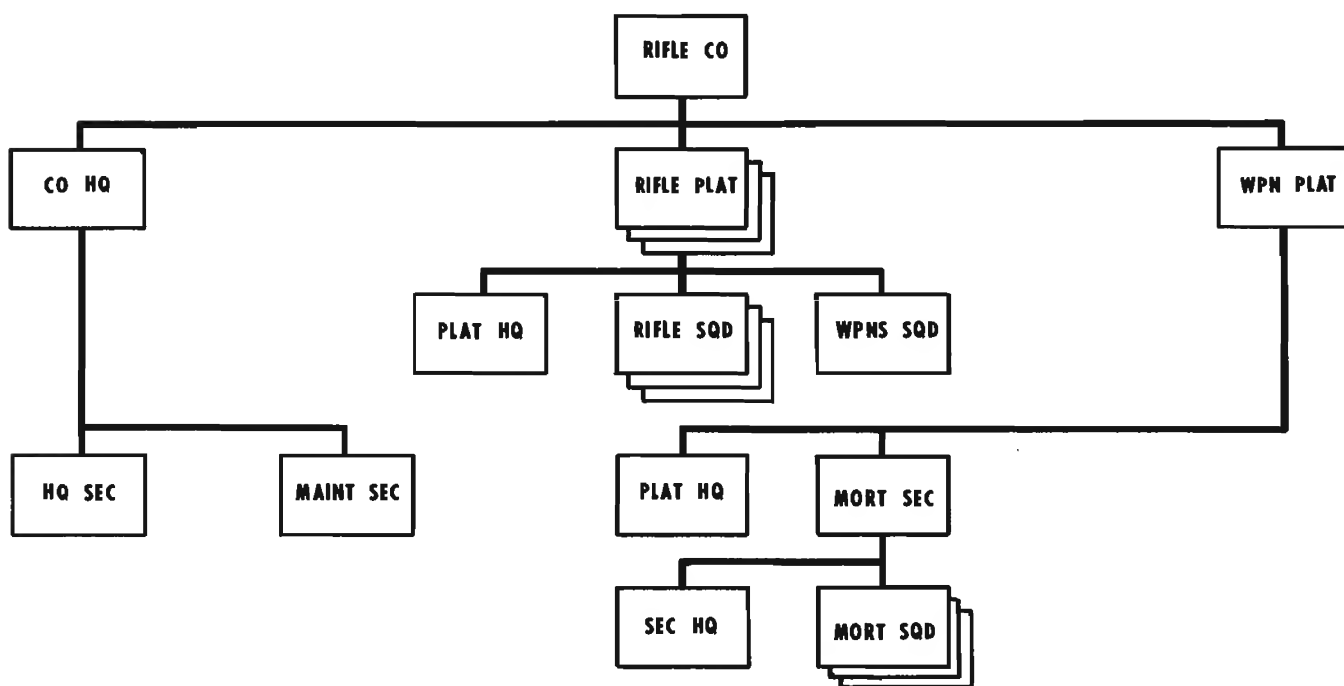


Figure B-11. Rifle company, mechanized infantry battalion.

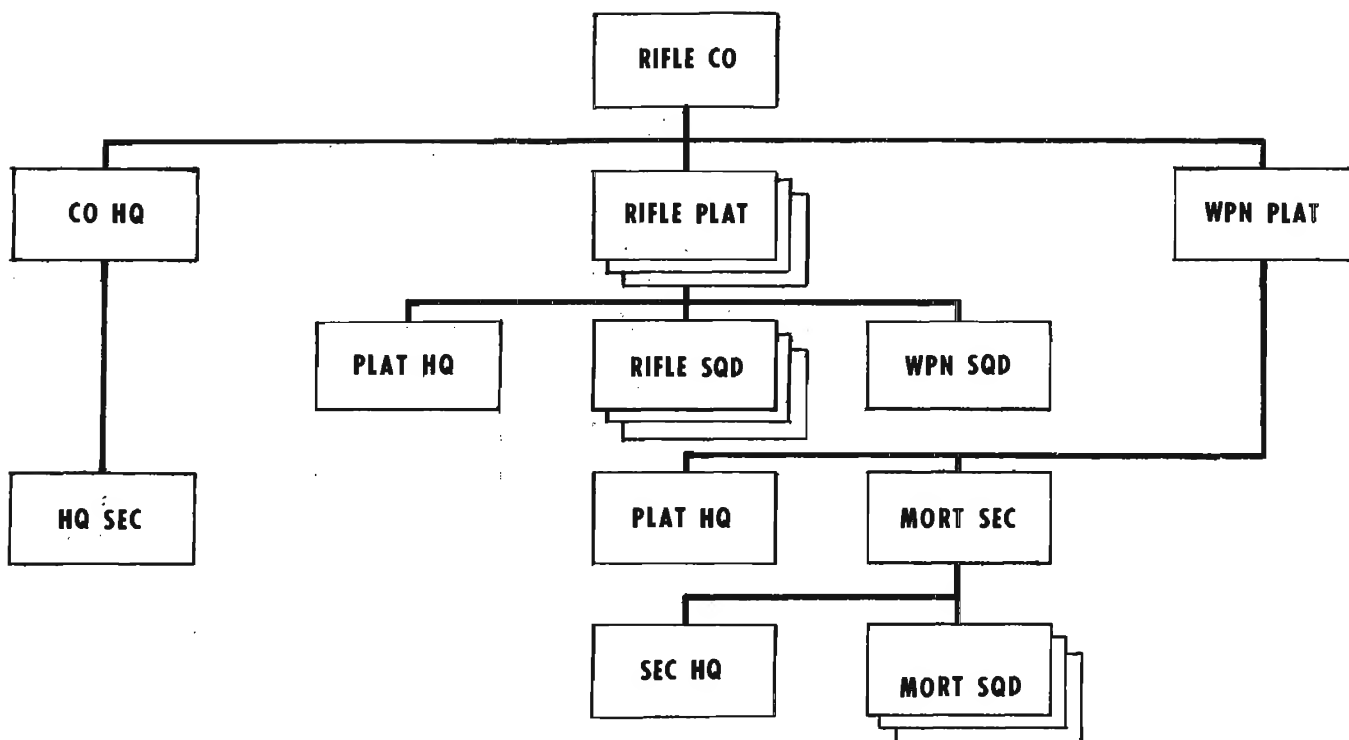


Figure B-12. Rifle company, airborne infantry battalion.

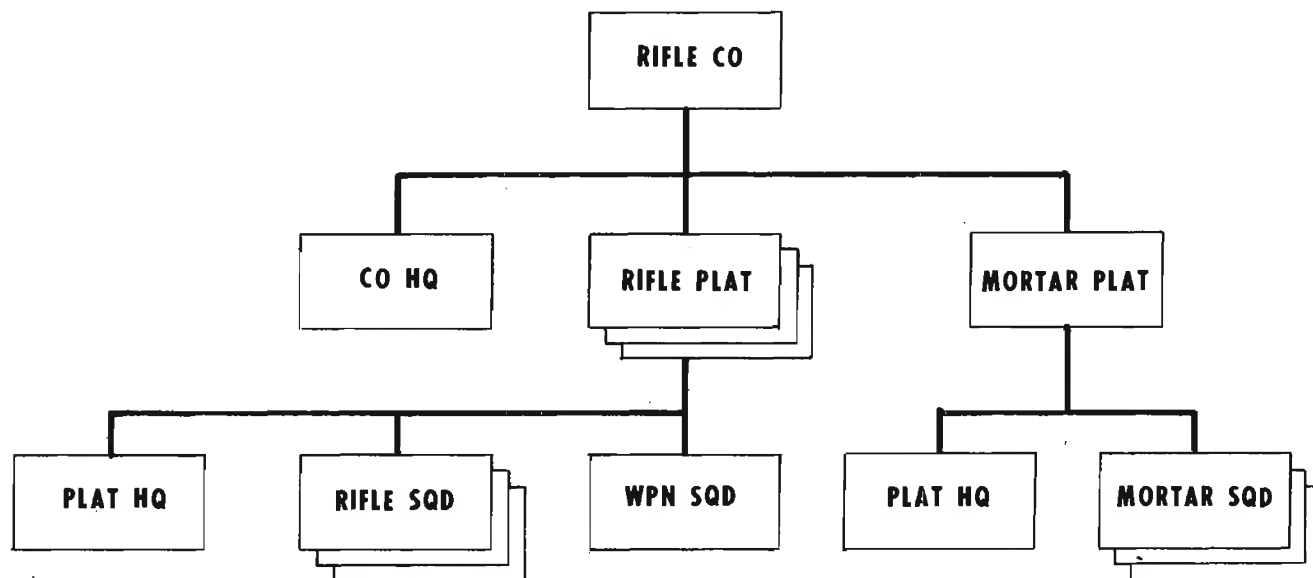


Figure B-13. Rifle company, airmobile infantry and light infantry battalion.

APPENDIX C

RECONNAISSANCE AND SCOUT PLATOONS

C-1. Mission

The mission of the reconnaissance and scout platoons is to perform reconnaissance, provide limited security, and conduct limited offensive, defensive, and retrograde operations.

C-2. Organization

The reconnaissance platoon is organic to the combat support company of the infantry, airmobile infantry, and light infantry battalions and organic to headquarters company of the airborne infantry battalion. The scout platoon is organic to the combat support company of the mechanized infantry battalion. Figure C-1 depicts the organization of the reconnaissance or scout platoon organic to the appropriate infantry battalion. For simplicity, subsequent paragraphs will not specifically point out organization differences except where essential for clarity. The *reconnaissance* and *scout* platoons will be referred to as *reconnaissance platoon* for simplicity throughout this appendix. For additional guidance on the employment of the scout platoon of the mechanized infantry battalion, see FM 17-15.

C-3. Duties of Key Personnel

a. Platoon Headquarters. The *platoon leader* is responsible for the training, control, supply, and tactical employment of the platoon. In the airborne infantry battalion, he is a special staff officer and normally operates under the staff supervision of the battalion S2. In the infantry, mechanized infantry, light infantry, and airmobile infantry battalions, the combat support company commander acts as the reconnaissance special staff officer. The battalion S3 assigns security, offensive, defensive, and retrograde missions and is responsible for tactical employment of the platoon except for reconnaissance intelligence missions. The platoon sergeant is second in command of the platoon and is charged with the responsibility for the administrative and logistical functions of the platoon.

b. Scout Section. The *section leader* is respon-

sible for the training, control, and tactical employment of the section as directed by the platoon leader.

*c. Tank Section.** The *section leader* is responsible for the training, control, and tactical employment of the section as directed by the platoon leader. When directed, the platoon sergeant will command the tank section.

d. Rifle Squad and Scout Squad. The *squad leader* commands his squad and employs it as directed.

e. Ground Surveillance Section. See appendix I.

C-4. Communication

The platoon has sufficient vehicular radios to operate a platoon net connecting each vehicular element of the platoon. In addition, portable radios are provided each element for use in dismounted operations. In the light infantry and airmobile battalion, the platoons rely on portable radios; however, these radios have the capability of operating in the battalion command net and the battalion logistical net.

C-5. Basic Concepts

a. Reconnaissance may be performed by offensive or defensive action.

b. Security missions may be performed by patrolling, by manning observation posts, or by actively engaging the enemy when necessary. A degree of security is provided by reconnaissance.

c. In performing its mission, elements of the ground surveillance section may be attached (organic in airborne battalion). The platoon may also require support from other units (engineers, Army aviation, and artillery).

C-6. Reconnaissance Operations

a. Definition. Reconnaissance is the directed effort in the field to collect information of the enemy and the area of operation.

b. Formations. The scout section normally leads when the situation is vague. This affords greater

*The tank section will be deleted from the infantry battalion reconnaissance platoon when G-series TOE are implemented.

	INF BN RECON PLAT				AIRBORNE INF BN RECON PLAT				MECHANIZED INF BN SCOUT PLAT				AIRMOBILE INF BN RECON PLAT				LIGHT INF BN RECON PLAT			
	NO.	STRENGTH	ARMAMENT	TRANS	NO.	STRENGTH	ARMAMENT	TRANS	NO.	STRENGTH	ARMAMENT	TRANS	NO.	STRENGTH	ARMAMENT	TRANS	NO.	STRENGTH	ARMAMENT	TRANS
PLAT HQ	1	2		1-1/4T	1	3		1-1/4T W/T	1	7	1-M73 1-M2 2-M79	1-M113 1-M114	1	4			1	4		
SCOUT SEC	1				1				2											
SCOUT SQ	3	12	4-M60 2-M79	4-1/4T	3	12	4-M60 4-M79	4-1/4T	6	24	8-M73 8-M2 8-M79	8-M114	3	30	3-M79		3	30	3-M79	
*TANK SEC	1	8	2-106	2-1/4T																
RIFLE SQ		10	1-M60	1-3/4T																
BN SURVL SEC					1	6		2-1/2T												
TOTAL		32	5-M60 2-M79 2-106	7-1/4T 1-3/4T		21	4-M79 4-M60	5-1/4T 2-1/2T 1-1/4T TRAILER		31	9-M73 9-M2 10-M79	1-M113 9-M114		34	3-M79			34	3-M79	

Figure C-1. Organizational comparison of the infantry battalions' reconnaissance/scout platoon.

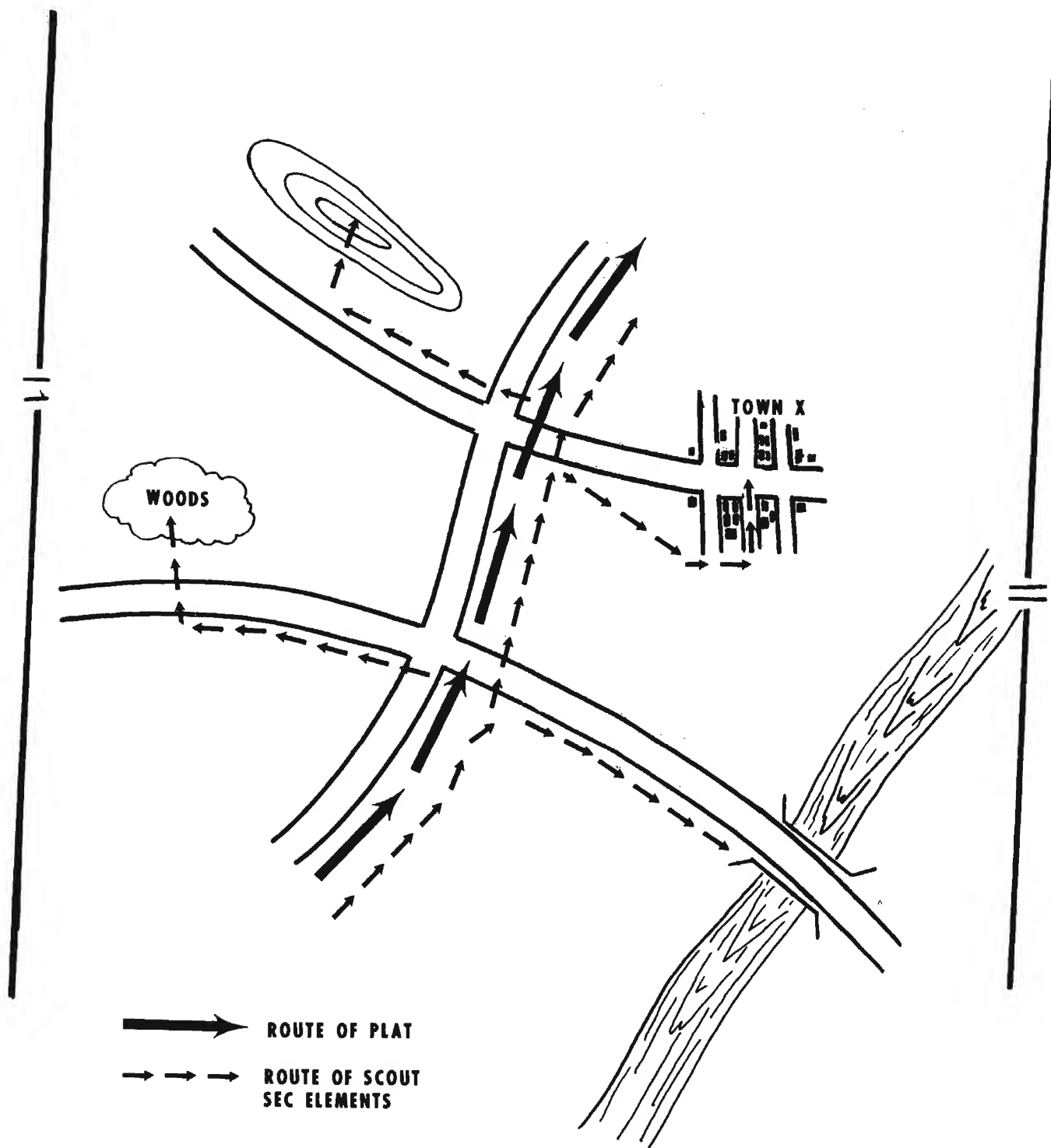


Figure C-2. Route reconnaissance.

flexibility and freedom of movement and permits the development of the situation prior to committing other elements of the platoon. In the infantry battalion, the tank section may lead the formation with the scout section employed on the flanks when—

(1) The platoon is approaching a suspected enemy position.

(2) It is necessary to insure the uninterrupted advance of the platoon against delaying forces employing harassing small-arms fire and artillery.

c. Types of Reconnaissance Missions.

(1) *General.* The platoon may be given the mission of reconnoitering a route, zone, or area. Factors to be considered in determining the mis-

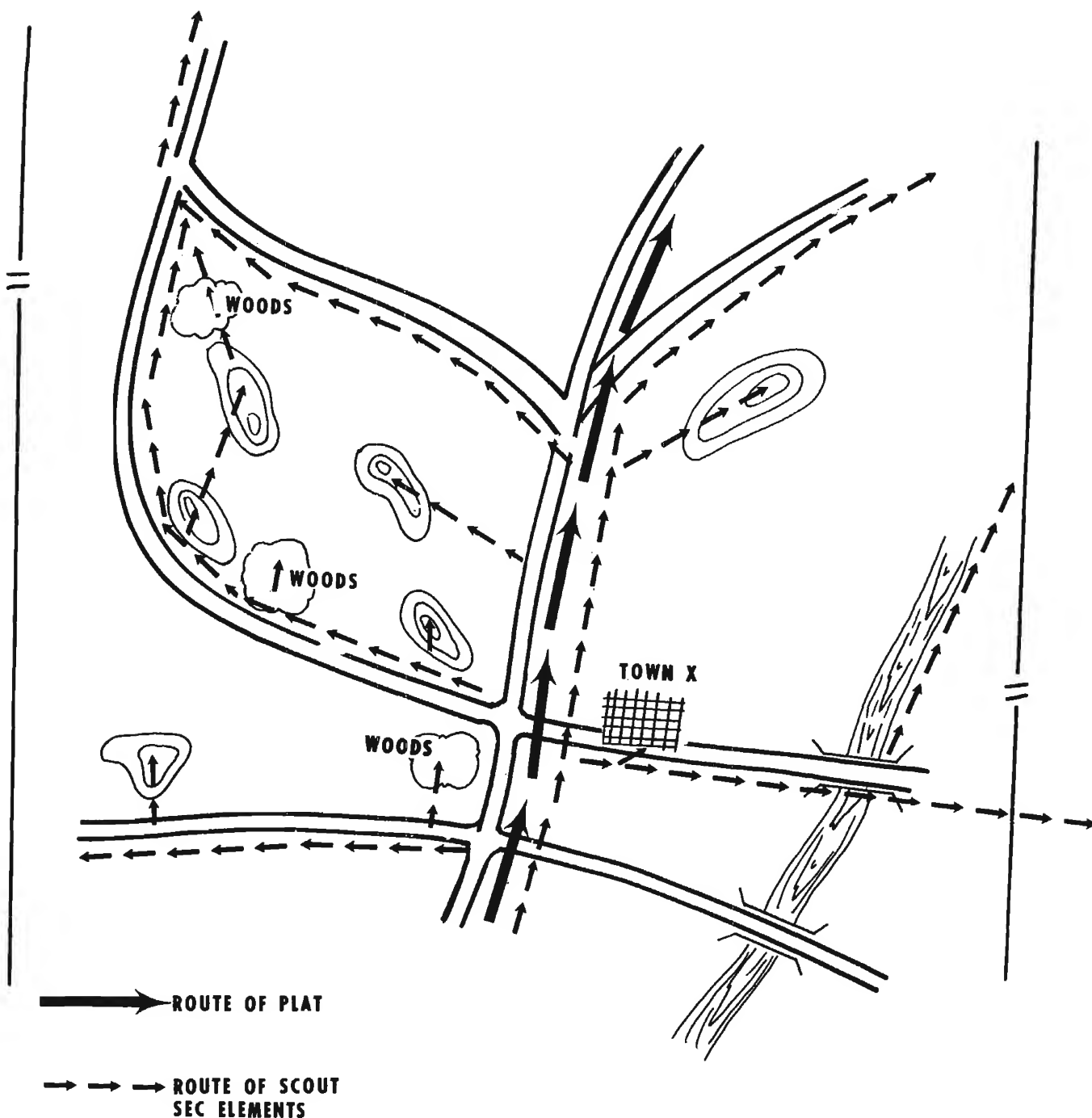


Figure C-3. Zone reconnaissance.

sion to be assigned are the information desired, where the information is to be sought, the known enemy situation, the terrain, the weather, and the time available for completing the mission. The platoon is limited in the distances over which it can successfully operate by such factors as road nets, mission, terrain, and effective range of communication. The platoon's tank section (when appropriate) normally supports the reconnaissance

mission by overwatching the scout section. It is prepared to support by fire or to attack as necessary. The platoon operates most effectively when employed as a unit. In performing its mission, the platoon is alert for the presence of unusual enemy activity such as CBR contamination in the battalion area. For a discussion of airmobility for land reconnaissance elements, see FM 1-100.

(2) *Route reconnaissance.* Route reconnais-

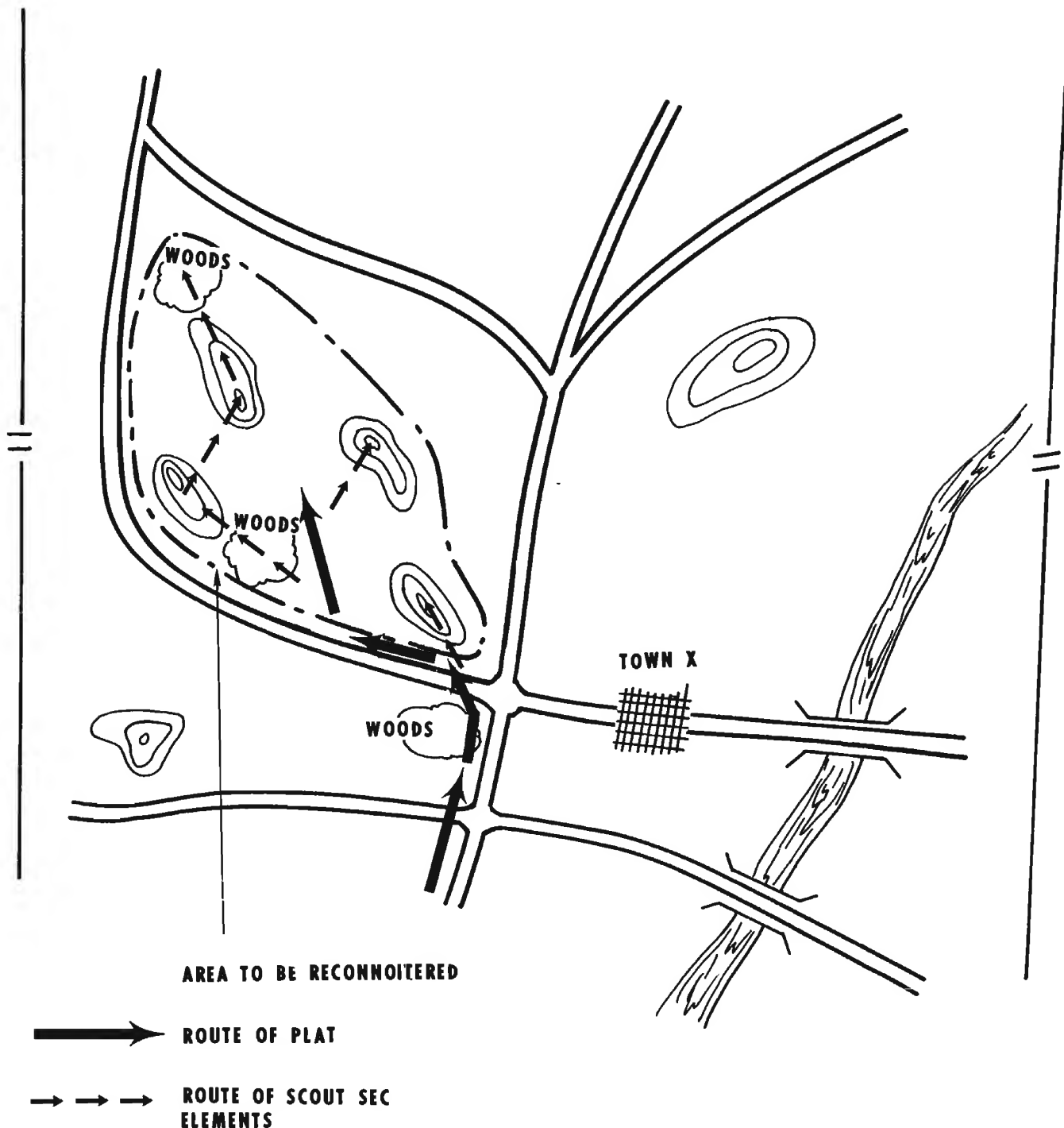


Figure C-4. Area reconnaissance.

sance is the directed effort to obtain information of the enemy and/or the terrain along a specific route and on the terrain features that dominate the route. The platoon normally conducts route reconnaissance by moving on the route in column formation with the scout section reconnoitering the terrain features that dominate the route. The platoon gathers such information as the nature of the terrain; the conditions of existing roads; the

lengths, load classification, vertical clearance, and conditions of bridges; location of stream-crossing sites or means; obstructions; vertical clearance of routes; and areas where traffic delays may occur (fig C-2). Route reconnaissance can be made faster than zone or area reconnaissance and may be employed when time is not available for more detailed reconnaissance.

(3) *Zone reconnaissance.* Zone reconnais-

sance is the directed effort to obtain information of the enemy or terrain between two assigned boundaries. All major roads and terrain features within the zone must be reconnoitered. The same type information as listed for route reconnaissance is obtained. The platoon, minus the scout section, may conduct zone reconnaissance by advancing in column formation on the best road net within the zone. The scout section reconnoiters other roads and terrain features between the assigned boundaries (fig C-3). Zone reconnaissance is more time-consuming than other types of reconnaissance.

(4) *Area reconnaissance.* Area reconnaissance is the directed effort to obtain information of the enemy or the terrain within a definitely defined area (fig C-4). The platoon conducts area reconnaissance by moving over the most direct route to the area to be reconnoitered. It then reconnoiters the area using the same technique as that used for the zone reconnaissance. An example of such a mission is the reconnaissance of a bridge, town, possible enemy location, tentative assembly area, or possible contaminated area.

d. Reconnaissance by Fire.

(1) Reconnaissance by fire is a technique used when time is critical or the terrain does not favor the employment of patrols. It is employed at the expense of secrecy because it discloses the platoon's location and alerts the enemy to its presence in the area.

(2) Reconnaissance by fire is accomplished by firing into likely or suspected enemy positions in an attempt to cause the enemy to disclose his presence by movement or return fire. During reconnaissance by fire, personnel with binoculars should continually observe the positions being reconnoitered so that any enemy movement or return fire is precisely located.

(3) If the enemy returns the fire, the platoon proceeds to develop the situation. While reconnoitering, the platoon must exercise caution since reconnaissance by fire may fail to draw premature fire from seasoned troops.

e. Reconnaissance of a Bridge or Defile. Visual reconnaissance is made for enemy positions before the leading elements cross a bridge or pass through a defile. When mines, boobytraps, or ambushes are suspected, one scout squad/element patrols while another scout element covers by fire. Reconnaissance of a bridge includes searching for demolition charges or weakened construction. Of particular importance to mechanized infantry units is determining weight classification of bridges. All personnel in the platoon must be pro-

ficient in this skill. Mines, boobytraps, or demolition charges must be removed or neutralized. Required technical assistance is obtained from direct support or attached engineer units.

f. Reconnaissance of a Town, Obstacle, or Enemy Position.

(1) When the platoon has been assigned the mission of reconnoitering a town, obstacle, or enemy position, it makes an attempt to approach it from the flanks or rear. Where possible, detailed visual reconnaissance with binoculars precedes the actual reconnaissance.

(2) When time is available, dismounted patrols move forward while another scout element covers their movement. When patrols find the near edge of a town clear, the remainder of the unit moves forward. The dismounted patrols then continue the reconnaissance, overwatched and closely followed by the remainder of the platoon.

(3) When speed of advance is essential and time cannot be taken to approach towns from the flanks or to perform dismounted reconnaissance, the scouts accomplish the reconnaissance mounted. In this case, the scout elements, after a visual reconnaissance with binoculars and in some cases reconnaissance by fire, move forward rapidly by bounds, covered by the remainder of the platoon. If the near edge of the town is clear, the scout section moves forward and the advance continues. Vehicles move through the town by bounds in a staggered formation, close to the buildings, covering the buildings on the opposite side of the street by observation and fire.

g. Control.

(1) The platoon leader controls and coordinates the movement of his platoon primarily by radio. He is prepared to move rapidly to any portion of his area to influence the action as required.

(2) To assist in control and coordination, the platoon may use phase lines, checkpoints, or contact points. Normally, the platoon reports, but does not stop, on reaching or crossing phase lines unless otherwise directed.

h. Reconnaissance Orders and Instructions.

(1) Reconnaissance missions are assigned to the platoon as a unit. When more than one mission is assigned, a definite priority is established. At times, the scout section may be employed separately from the rest of the platoon.

(2) Instructions to the platoon leader normally include the following:

(a) Available information on the enemy and friendly troops in the area of operation.

(b) Plans of the higher commander.

- (c) Specific information desired.
- (d) Zone, area, or route to be reconnoitered.
- (e) When, where, and how information is to be reported.
- (f) Time of departure.
- (g) Formations and control measures, such as phase lines, checkpoints, and contact points.
- (h) Time mission is to be completed.
- (i) Actions upon completion of mission.

(3) The platoon leader normally issues oral instructions to his platoon. Unless the immediate situation makes it impractical to do so, he assembles his squad and section leaders to receive the order. After the reconnaissance begins, he disseminates necessary additional instructions by radio, messenger, or in person.

i. Reconnaissance at Night. Reconnaissance operations are slower and less effective at night. They are usually limited to dismounted patrolling, observation of routes, and the use of listening posts. Only against very light resistance and with favorable terrain and routes of advance can vehicular reconnaissance be used without being preceded by dismounted patrols. Night vehicular reconnaissance normally is confined to the road net.

C-7. Security Operations

a. Definition and Purpose. Security includes all measures taken by a command to protect itself from enemy observation, signal intelligence, sabotage, annoyance, or surprise. Its purpose is to gain and maintain freedom of action.

b. Fundamentals of Security.

(1) *Orient on the main body.* The security force (i.e., the platoon or its elements) positions itself between the main body and a known or suspected enemy threat. This applies whether the main body is stationary or moving. In order for the security force to maintain this relative position, it must be provided maximum freedom of action. The security force orients its maneuver on the main body and regulates its rate of movement to that of the main body.

(2) *Perform continuous reconnaissance.* Continuous and aggressive reconnaissance must be performed by all security forces. Through reconnaissance, the platoon leader is able to keep the main body commander informed and provide early warning of the enemy encountered or observed, as well as the condition of the terrain that may affect the overall mission of the main body. Such information enables the battalion commander to revise

his plans according to tactical requirements. Knowledge of the enemy location, strength, disposition, and composition will permit the battalion commander to react to a threat. This same information is also used by the security force commander as a basis for adjusting his formation to position his units between the enemy and the main body.

(3) *Provide timely warning.* The speed in which information of the enemy is reported by the security force is of primary importance. The battalion commander must have early warning of the location and movement of enemy forces that constitute a threat to his mission. Timely warning permits the commander to choose the time and the place to engage the enemy.

(4) *Provide space for maneuver.* The platoon must operate at sufficient distance from the main body to provide maneuver space and the time for the main body to react to an enemy threat.

(5) *Maintain enemy contact.* Once contact with the enemy has been gained, it must be maintained as long as the enemy presents a threat to the main body. The enemy forces must not be permitted to penetrate the security force unobserved and thus surprise the main body. If an enemy force moves out of the area of responsibility of the security force, action should be taken to inform the unit into whose area the enemy has moved. In such a situation, contact with the enemy force should be, whenever possible, maintained until the latter unit gains contact.

(6) *Avoid decisive engagement.* The reconnaissance platoon avoids decisive engagements unless required as a part of its security mission.

c. Security Missions.

(1) *General.* A security mission may include performing as an advance guard, flank guard, screening force, or rear guard; or maintaining contact or rear area security. These missions are accomplished by offensive, defensive, or retrograde actions.

(2) *Advance guard.* Normally, the reconnaissance platoon performs this mission as a part of a larger force. However, when contact with the enemy is remote or during an exploitation, the platoon may act alone as the advance guard of the battalion. In performing this mission, the platoon normally employs the formation and techniques used in route reconnaissance.

(3) *Flank guard.*

(a) A flank guard is a security detachment that protects the flanks of the main body by occupying a series of blocking positions that dominate

likely avenues of enemy approach into the flank of the main body and by a combination of visual reconnaissance, screening operations, and delaying tactics within its capabilities, when required. It may be employed during offensive, defensive, or retrograde operations to protect the main body from ground observation, direct fire, and surprise attack. When protecting a moving force, the platoon regulates its rate of advance on that of the main body. Army aircraft may be used to complement ground security forces.

(b) When conducting a flank guard mission, the area of responsibility of the platoon must be clearly delineated.

(4) Screening.

(a) A screening force is employed when an extended front cannot be otherwise secured. It protects an area or a body of troops from surprise by observing and reporting enemy activity. Within its capability, the screening force destroys small enemy forces which enter its area of responsibility. The missions of the screening force are to provide timely warning of enemy approach, to gain and maintain contact with, and report the movement of, enemy forces, and to destroy or repel enemy forces.

(b) A screening mission may be accomplished by aerial surveillance, a series of observation posts, electronic surveillance devices, and patrols employed to cover the approaches into the sector. When the platoon is employed as a screening force, the combat strength of the platoon is dissipated by nature of the mission. Consequently, the screening force is normally not able to offer strong resistance to the enemy. Although the primary mission of a screening force is to provide timely warning and maintain contact with the enemy, it may attack to destroy or repel small enemy patrols that attempt to penetrate the screen.

(c) In planning for and conducting a screening mission, the platoon leader establishes a series of observation posts covering the area assigned. He employs patrols to cover the areas between the observation posts. The platoon accomplishes its mission by observing, reporting, and maintaining contact with enemy forces. The platoon leader moves his observation posts as required to maintain contact.

(5) *Rear guard.* A rear guard is a security detachment that protects the rear of a column from hostile forces. The rear guard defeats or delays hostile forces attacking the rear of the main body, protects support elements, and collects stragglers. The rear guard follows the main body at a distance prescribed by the main body com-

mander and usually moves on the axis of advance or route or the main body. The rear guard must not allow itself to be bypassed or driven in on the main body. The platoon performs reconnaissance to its flanks to insure that an enemy force does not envelop its flanks and attack the rear of the main body.

(6) Maintaining contact.

(a) The platoon may be assigned the mission of maintaining contact with friendly or enemy units. Physical, radio, or visual contact may be prescribed for friendly forces.

(b) In a contact mission, the platoon uses the same techniques as prescribed for a reconnaissance or other security mission. The enemy situation, terrain, distances involved, and the actions of the main body are the factors determining which technique(s) it employs. Contact missions may be assigned in conjunction with reconnaissance or other security missions.

(7) *Rear area security.* The platoon may be assigned rear area security missions. It normally accomplishes this mission by establishing roadblocks and/or patrols to cover the critical approaches into the battalion rear area, as directed by the battalion commander.

C-8. Actions of Platoon Upon Contact

When the platoon makes contact with the enemy, it normally follows three distinct steps which generally parallel the conduct of employment during the movement to contact and meeting engagements. See section VI, chapter 4.

a. Deploys and Reports. In mounted operations, vehicles are moved to positions from which the enemy can be engaged by fire. The platoon leader reports to the battalion commander that contact has been made.

b. Develops the Situation. The platoon leader develops the situation.

c. Chooses and Executes a Course of Action. After developing the situation, the platoon leader completes his estimate of the situation and decides on a course of action based on his assigned mission. It may be to attack, defend, delay, maintain contact, or bypass. The platoon leader keeps the battalion commander informed.

C-9. Conduct of Platoon Offensive Operations

a. Essential Details. The plan of attack is designed to insure maximum coordination between the elements of the platoon throughout the opera-

tion. The plan must be simple, but it must include certain details when appropriate.

(1) The composition of the maneuvering force, the route it will follow to the objective, and its method of movement.

(2) The composition and location of the fire support, targets to be fired on, and control measures for lifting or shifting fires.

(3) Provisions for security during the attack, during consolidation of the objective and reorganization, and upon resumption of the advance.

b. Maneuvering Force.

(1) The maneuvering force advances rapidly and fires on all known and suspected targets within effective range. Organic fires are reinforced by available supporting fires.

(2) The scout section or squad and/or rifle squad when appropriate advances in vehicles as far as possible, dismounting when forced by enemy fire or when dismounted action is required. Dismounted personnel eliminate enemy elements not destroyed by supporting fires. In the infantry battalion, dismounted personnel may advance ahead of the tank section to clear buildings or to locate well-hidden mounted elements or crew-served antitank weapons. Such personnel designate targets to the tank section commanders by the use of prearranged signals; when tanks are employed, the external interphone located on the rear of the tank may be used.

c. Action on the Objective. When the platoon secures the objective, it consolidates and reorganizes in preparation for future operations. The extent of consolidation and reorganization depends on the mission, time available, and losses suffered by the platoon. Reorganization includes making reports, evacuating casualties, and resupply.

d. Command and Control. During the attack, the platoon leader places himself where he can best influence the action. Normally, this will be with the maneuvering force. The platoon sergeant may be used to control those elements not directly under the control of the platoon leader.

C-10. Conduct of Platoon Defensive Operations

a. General. The platoon operating alone is extremely limited in its ability to conduct a prolonged defense. However, in the conduct of reconnaissance and security missions, it may be required to defend an area for a limited time. Defense may be an assigned mission for the platoon or may be forced by enemy action.

b. Reconnaissance and Selection of Positions.

(1) When assigned a defensive mission, the platoon leader, accompanied by his section and squad leaders, should make a thorough reconnaissance of the area to be defended.

(2) The platoon defensive position should control the area in which it is located; take maximum advantage of natural obstacles; afford good observation and fire; and offer concealment and cover. The terrain to the front should offer a minimum number of covered approaches for the enemy.

(3) Detailed plans must be made to integrate all available fires. The platoon leader assigns sectors of fire to each segment of the platoon, and final protective lines to machineguns to insure that the entire platoon area of responsibility is covered.

c. Occupation and Preparation of Platoon Defensive Position.

(1) The platoon leader assigns specific areas of responsibility to each element of the platoon. Local security to the front and flanks of the position is provided by establishing observation posts to give early warning of enemy approach. Listening posts and surveillance devices will be used at night or when observation is limited. Patrols cover areas not otherwise under observation or covered by fire.

(2) The rifle/scout squads are located to provide maximum firepower to the front and flanks of the position. Elements are placed so they can fire across the front and flanks of the platoon defensive position. Carriers are employed in the squad area in hull defilade or concealed positions in order that the carrier-mounted weapon can be used to increase the defensive firepower of the platoon. The organization of the squad position may be changed at night to provide better close-in defense and protection.

d. Conduct of the Defense. The enemy approach is detected as far forward of the defensive position as possible. Long-range fires are normally brought to bear as he comes within range. As the enemy approaches the defensive position, he is brought under an increasing volume of fire; each weapon takes the enemy under fire as he comes within range. If the enemy envelops the flanks of the position or succeeds in penetrating it, the platoon leader adjusts his forces as necessary. The platoon leader, throughout the conduct of the defense, keeps the battalion commander advised of the situation. The platoon defends its position until other action is directed by the battalion commander.

C-11. Conduct of Platoon Delaying Action

a. General. The platoon frequently conducts delaying actions in accomplishing a reconnaissance or security mission. The action is conducted on a series of delaying positions and is characterized by a series of movements to the rear to successive positions. The platoon maintains continuous fire on the enemy to delay his forward progress and force him to deploy. The platoon inflicts maximum damage without becoming decisively engaged.

b. Selecting Delaying Positions. Whenever possible, the delaying positions should be on commanding terrain. They should have good observation and fire, concealment and cover, obstacles to both front and flanks, and covered routes of withdrawal. The platoon leader reconnoiters the initial delaying position and normally utilizes the platoon sergeant to reconnoiter each succeeding position.

c. Organizing the Position. A delaying position is organized in generally the same manner as prescribed for the defense (chap 5). The platoon is positioned on commanding terrain that covers one likely avenue of enemy approach, preferably with only one avenue leading into the position.

d. Conduct. The action on the delaying position is similar to that prescribed for the defense, except that the platoon avoids close combat. When the position is in danger of being overrun, or at a specified time, the platoon moves to the next delaying position, keeping the enemy forces under fire and observation.

e. Movement to Subsequent Positions. The platoon holds each delaying position until forced to move to the next delaying position or to comply with orders from the battalion commander. If the platoon is forced to move by enemy action, the platoon leader must inform the battalion commander in sufficient time to obtain authority to move before becoming decisively engaged, or if permission has been granted previously, inform the battalion commander that he is moving. He must keep the battalion commander informed as the situation progresses. The platoon may move from the delaying position as a unit or by squads or sections.

C-12. Movement To Contact

a. In the movement to contact, the reconnaissance platoon may be used to locate enemy dispositions and reconnoiter routes of zones over which the battalion will advance. If a covering force is employed forward of the battalion, the reconnaissance platoon maintains contact with that force, if practicable. Once the strength and location of

enemy positions have been determined with a reasonable degree of certainty, the battalion deploys for combat. The reconnaissance platoon may then be moved to a flank to provide flank security for the battalion or to cover gaps.

b. The reconnaissance platoon normally does not operate forward of the battalion in the attack after significant enemy contact has been made, but is assigned a flank security mission on the most critical flank or the platoon may also be given the mission of maintaining contact with adjacent units, manning observation posts, or other appropriate tasks.

c. When, after seizure of the objective, the battalion immediately resumes the attack toward a deep objective and no immediate enemy resistance is expected, the reconnaissance platoon functions as in the movement to contact.

d. When the battalion consolidates the objective prior to the continuation of the attack, the platoon may be used to reconnoiter beyond the objective, to maintain contact with the enemy, conduct screening missions to the front or flanks, or maintain contact with adjacent units.

e. When nuclear weapons are used by either friendly or enemy forces, the platoon may receive the mission of reconnoitering the area of detonation to determine the amount of damage and/or contamination in the area. Engineer and other specialized personnel may be attached to the platoon for such missions.

C-13. Action During Battalion Pursuit

When the battalion is engaged in the pursuit, the platoon functions as prescribed for the movement to contact. Every effort is made to gain and maintain contact with the withdrawing enemy.

C-14. Actions in Battalion Defensive Operations

a. The reconnaissance platoon operates initially with the security echelon. When a GOP is established, the platoon operates between the GOP and the COP. It maintains contact with the GOP. While accomplishing this, the platoon reconnoiters the roads and trails in the area and establishes temporary observation posts to observe particular areas. It also reconnoiters for enemy approaches and possible locations of future enemy assembly areas and weapons positions. It recommends locations for targets as part of the long-range defensive fires. It is capable of performing a combination of these missions simultaneously. Upon the

withdrawal of the GOP through the COP, the platoon may operate battalion observation posts on the FEBA or COP, provide additional security between the FEBA and COP, maintain contact with adjacent units, conduct a flank guard mission on an exposed flank, or perform a security mission in the battalion rear area. The ability of the platoon to perform more than one of these tasks simultaneously is limited.

b. When there are no friendly forces operating forward of the battalion, the platoon may conduct a screening mission to the front, maintaining visual contact with the enemy as he approaches.

c. The reconnaissance platoon of a reserve battalion normally performs reconnaissance and security missions throughout the battalion area of responsibility and reconnoiters routes over which the battalion may be employed. When the reserve battalion is committed to the counterattack, the platoon functions as prescribed for the attack.

C-15. Actions During Battalion Retrograde Operations

a. *General.* When the battalion is conducting a retrograde operation, the platoon normally operates under battalion control. The techniques employed are usually determined by the enemy situa-

tion and the degree of visibility; i.e., whether the operation is conducted during daylight or at night.

b. *Withdrawal Not Under Enemy Pressure.* The platoon may be used as the reserve element of the battalion detachments left in contact. It patrols or blocks the most likely avenues of enemy approach into the battalion rear area. It may act as a security element to assist the withdrawal of the DLIC. The platoon may perform the task of maintaining contact with the enemy during the withdrawal. The priority of these missions is determined by the commander of the DLIC.

c. *Withdrawal Under Enemy Pressure.* The platoon may perform the missions to protect the battalion flank; maintain contact with the enemy; give warning of hostile movement; and, within its capabilities, harass, delay, and destroy pursuing forces. It may be attached to the battalion covering force to perform similar missions.

d. *Delaying Action.* In the conduct of a delaying action, the platoon will initially perform missions as indicated in a withdrawal. The platoon may assume the role of rear guard, execute demolitions, direct fires, and delay the enemy within its capabilities.

e. *Retirement.* The platoon may be directed to perform any of the normally assigned reconnaissance and/or security missions.

APPENDIX D

ANTITANK PLATOON

D-1. Mission

a. The primary mission of the antitank platoon is to provide antitank fire support for the battalion. Its secondary mission is to engage enemy bunkers, observation posts, vehicles, crew-served weapons, and similar targets.

b. A general discussion of missions assigned to the platoon is contained in chapter 3. This appendix deals with the detailed organization and employment of the platoon.

D-2. Organization

In the infantry battalions, the platoon consists of a platoon headquarters and six antitank squads. The antitank platoon is organic to headquarters and headquarters company in the airborne infantry battalions and organic to the combat support company in the infantry, mechanized, airborne, and light infantry battalions. (See app B and appropriate TOE for a more complete discussion of organization and equipment.)

D-3. Duties of Key Personnel

a. The *platoon leader* is responsible for training, control, tactical employment, and supply of the platoon. He receives his orders from the battalion commander, the combat support company commander, or the commander of the unit to which attached. He makes recommendations for the employment of his platoon and selects and directs the preparation of firing positions and areas for squads of the platoon which are not attached to other elements of the battalion. When he is not attached to a subordinate element of the battalion, he either remains with the battalion commander or the combat support company commander, or is in communication with them at all times. He coordinates with rifle company commanders in whose area his units operate and locates himself where he can best influence the action of his units. In the airborne infantry battalion, he is a special staff officer under the staff supervision of the S3. In the other types of infantry battalions, the combat support company commander serves as the special staff officer on the employment of the platoon.

b. The *platoon sergeant* is second in command

and assumes command of the platoon in the absence of the platoon leader. He supervises the platoon transportation and resupply of ammunition and supplies. He may be designated to accompany a portion of the platoon on a mission to assist squad leaders in matters of fire control and coordination with supported units.

c. The *squad leader* is responsible for all actions of his squad in tactical operations. He supervises the organizational maintenance of squad equipment. He selects the exact position for the antitank weapon. He is responsible for correctly positioning crew personnel and for emplacing and displacing the weapons and related equipment. He controls his squad's fire through issuance of timely orders.

d. The *gunner* fires on targets as directed by the squad leader or as required by the situation. He performs operator maintenance of the weapon and related equipment. He is capable of assuming the duties of the squad leader.

D-4. Communication

a. Radio.

(1) The radio in platoon headquarters is mounted in the platoon leader's vehicle. The platoon leader operates in the battalion command net, the platoon command net, and any other net as required. A portable radio in platoon headquarters is used by the platoon leader for dismounted situations.

(2) The vehicular mounted portable radio of each squad is operated in the platoon command net when the squad is under control of the platoon leader. When a squad is attached to subordinate or attached units of the battalion, the radio is used to maintain communication with the supported units. The platoon sergeant operates in the battalion logistical net when required.

b. *Wire.* Each antitank squad and the platoon headquarters has wire and telephones to establish communication through the nearest switchboard. In addition, the platoon headquarters has a switchboard which enables the platoon to establish its own wire net when necessary.

D-5. Basic Concepts

a. The squad is the basic unit of the platoon. If the situation permits, it is desirable to employ two squads in a mutual support role, thereby providing depth to the antitank defense. However, the number of armor approaches may preclude mutual support. In any event, employment of a squad(s) depends on the following considerations:

(1) Potential threat along the *major or best* armor approach.

(2) Minimum and maximum range of the weapon.

(3) Adequate fields of fire.

(4) The antitank weapons system's requirement for direct observation of the target. During periods of reduced visibility or darkness, illumination of the target may be required.

(5) Rate of fire of antitank weapons system when appropriate.

b. Enemy armor will often present multiple targets, thus requiring rapid target engagement. In this regard, employment of the maximum number of weapons is appropriate. The enemy's use of concealment and smoke and artillery delivered on the gunner's firing position may render the gunner (and the weapon) ineffective. For this reason, maximum use should be made of firing positions with the gunner in a covered and concealed position.

c. When the platoon leader receives an order or change thereto, he coordinates with those elements affected. For example, if a squad is attached to a rifle company, he coordinates the squad's movement, communication, and resupply with the appropriate company commander. If tanks are employed with the battalion, he effects coordination with the tank company commander in order to provide the most effective antitank plan.

D-6. Position of Leaders

a. If all squads of the platoon are attached to rifle companies, the platoon leader and the platoon sergeant locate themselves where they can assist the rifle company commanders in the employment of the antitank weapons system. While engaged in these functions, the platoon leader remains in contact with the combat support company commander or the battalion commander.

b. When the entire platoon (or platoon minus) is attached to one rifle company, the platoon leader receives his orders from that company commander. He usually follows the procedure described in c, below.

c. When the platoon is placed in general support of the battalion, the platoon leader selects an observation post from which he can observe the avenues of enemy armor approach. If the terrain does not permit this, he places himself where he can best control the squads covering the most dangerous armor approaches. He does not restrict himself to one location, but moves wherever he is required to control the platoon. He follows this same procedure when his platoon is in a direct support role.

d. Based on directions from the unit commander to which attached, squad leaders position themselves where they can best control their squad.

D-7. Selection of Firing Positions

a. The platoon leader or supported unit commander designates general firing position areas, and the squad leader selects the exact location for the weapon. Ideally, they select positions from which the squads can perform both their primary and secondary missions. If this is impossible, positions covering the most dangerous avenue(s) of armor approach take priority. Alternate and supplementary positions must be selected and prepared as time permits. The positions provide mutual support between squads of the antitank platoon whenever possible. The squads are emplaced to cover all possible tank approaches.

b. The antitank weapons system is located at a vantage point from which good observation of the squad's assigned sector is possible. The weapons system position should provide cover, concealment, and protection for the crew and equipment.

c. A firing position should provide:

- (1) Gunner observation of assigned sector.
- (2) Long-range observation and fire.
- (3) Cover for the weapons system position.
- (4) Mask clearance.
- (5) Security (by being near friendly troops).
- (6) Good vehicle routes into and out of firing position.
- (7) Concealment from aerial observation.
- (8) Capability to employ flanking or oblique fire.

D-8. Occupation of Firing Positions

The platoon leader or supported unit commander designates when and how the squads move into position.

D-9. Alternate and Supplementary Positions

a. Squads occupy alternate position when hos-

tile fire threatens to neutralize the firing position. The authority to occupy alternate positions is normally delegated to the squad leader. When alternate positions are occupied, the platoon leader or supported unit commander is immediately notified. In selecting alternate and supplementary positions, the squad leader must consider the minimum range of the weapons system and therefore select other positions which may be occupied when targets come within minimum range of the primary position.

b. Movement to supplementary positions is made on order of the platoon leader or the supported unit commander. The possibility of targets appearing within minimum range of the weapons system should be considered in all tactical actions, and timely displacement must be achieved to insure effective and continuous antitank coverage.

D-10. Security

Squad leaders are responsible for providing their own local security and utilize crewmen not engaged in firing and handling ammunition. Riflemen can be used to supplement the squad's capability for close-in protection. Maximum effort is made to minimize the possibility of the enemy locating the position. Passive protection measures are taken to protect personnel and equipment from the effects of enemy weapons.

D-11. Ammunition Resupply

a. In a general or direct support role, ammunition resupply is a function of the platoon sergeant. Squad leaders coordinate with the platoon sergeant for the ammunition resupply for their squads. The vehicle in each squad is utilized for resupply.

b. In an attached role, ammunition resupply is the responsibility of the commander of the unit to which attached. The squad vehicle or any vehicle designated by the unit commander is used.

c. Resupply procedures are implemented whenever ammunition is expended. Normally, the squad vehicle remains near the firing site. If the situation allows, any remaining ammunition on the truck is offloaded to allow the vehicle to return to the battalion combat trains to draw additional ammunition. Because of possible damage when outside the container, ammunition should remain in containers until prepared for firing.

D-12. Defensive Operations

a. The platoon may support any one or any combination of the three echelons of defense. When

supporting the security echelon, elements of the platoon are disposed, with the security force, to cover likely approaches of enemy armor. They assist the security force in the accomplishment of its mission by taking the enemy under fire at maximum range. They may be used during the withdrawal to the FEBA. When supporting forward defense forces, the platoon is disposed to cover the most probable avenues of armor approach consistent with the capabilities of the weapons system. If tanks are available, they are positioned to exploit their capabilities. In any event, the antitank platoon's weapons are integrated into an antitank defense that incorporates every type of antitank defenses of the battle area, to protect a flank or to participate in the counterattack in a supporting role. If tanks are available for this purpose—to add depth and a counterattacking capability—battalion antitank weapons may be employed with the forward companies in an attached or supporting role.

b. The preferred employment for squads in both area and mobile defense is well forward covering dangerous avenues of enemy armor approach. The elements of the platoon may be attached to the companies in whose area they are operating. This includes employment on the COP as required. When tanks are attached to the battalion, the major portion is retained in reserve so as to capitalize on their offensive capabilities and, at the same time, to provide the battalion with antitank defense in depth. When tank platoons are attached to forward rifle companies, they are employed to increase the antitank defense and cover dangerous armor approaches.

c. Antitank defenses are disposed both laterally and in depth. They are planned to destroy enemy armor forward of the battle area. If enemy armor reaches or enters the battle area, it is destroyed by antitank weapons positioned in depth, and by offensive action of armor reserves.

D-13. Retrograde Operations

a. *General.* Antitank squads generally are attached to units in a retrograde movement. This employment simplifies command control, decentralizes fire support, and provides antitank protection to units in the movement away from the enemy.

b. *Withdrawal Not Under Enemy Pressure.* To effectively employ the antitank weapons system, squads are attached to forward companies. They normally remain in this status throughout the withdrawal. In this way, antitank protection and fire support are provided to protect the with-

drawal of the main body. These squads may be further attached to detachments left in contact. Plans for movement of the platoon (squads) must include measures to provide security and maintain secrecy.

c. Withdrawal Under Enemy Pressure. When the battalion is forced to conduct a withdrawal under enemy pressure, squads are attached to forward rifle companies. In this employment, they reinforce company covering forces with fires to aid disengagement of forward units. When the forward rifle companies withdraw through the battalion covering force, the platoon (or squads) may be attached to this force. This attachment reinforces the fires of the covering force and provides the battalion with maximum antitank protection during a critical period. When a withdrawal under pressure is conducted during periods of reduced visibility, squads may remain attached to the forward companies. However, consideration must be given to their effectiveness to provide fires as influenced by the degree of visibility and the minimum range of the weapon.

d. Delaying Action. During the delay, the squads are attached to the forward companies. As the frontages may be much wider in a delaying operation, emphasis is placed on employing weapons from forward positions where they can place long-range fires on the enemy. Weapons are oriented astride the enemy armor approaches. Plans for employment of weapons should include reconnaissance of routes of withdrawal and occupation of covering and blocking positions in the rear. This is especially true when the battalion is executing maximum delay between successive delaying positions. When tanks are employed with forward companies of the delaying force, a portion of the antitank platoon may be used in depth to protect the flanks and rear of the battalion. Squads may be leapfrogged from one delaying position to another to provide continuous antitank defense.

D-14. Relief in Place

During the conduct of the relief, normal activities are simulated. The outgoing force furnishes security, fire support, and antitank protection until the responsibility for the position has been exchanged between incoming and outgoing commanders. Often, heavier supplies and equipment are left on position. In the event of enemy attack during relief, squads may be attached to the incoming force until such time as opportunity permits rearward infiltration.

D-15. Movement To Contact

a. When enemy contact is remote, the platoon normally moves under battalion control. It is positioned within the battalion march formation to facilitate prompt employment to the front, flanks, or rear.

b. As the probability of contact changes from remote to imminent, the order of march assumes increased importance. Elements of the platoon should be relocated within the march formation to cope with armor threats as they develop. Attachments are made as necessary.

c. When the advance and flank guards of the battalion do not have tanks attached and a tank threat exists, one or more squads are attached to, or placed in direct support of these elements. The remainder of the platoon is held in general support, moving by bounds at or near the head of the main body or disposed throughout the column to provide antitank protection. The squad(s) moves by bounds to positions providing coverage of dangerous armor approaches to the flank. When tanks are attached to the advance and flank guards, the antitank platoon is employed in general support of the battalion. Ideally, antitank means are provided for the rear guard.

d. Throughout the movement to contact, the platoon leader and squad leaders plan for the squads to occupy positions from which they cover the most dangerous avenues of enemy armor approach and best support the rifle companies.

D-16. Offensive Operations

a. When employed in the attack, the platoon's primary mission will be antitank protection or fire support. To engage targets as soon as they appear, the unit (or elements of it) is employed from vantage points near or on the line of departure.

b. When supporting an attack, squads are located to best support the attack and provide antitank protection. They continue to occupy initial positions until they can no longer perform their primary mission or until their fires become masked by the attacking rifle units. Squads engage enemy armor as soon as it comes within range and observation.

c. The antitank squads may have to displace to support a continuation of the attack or to support the consolidation on the objective. Displacement is not necessarily delayed until the squads can no longer provide effective antitank protection. Elements of the platoon may displace early to assist rifle units in repelling enemy counterattacks.

d. Squads displace on order or by prearranged signal. The availability of new positions, routes forward, and the enemy armor threat influence the method of displacement. When displacement is by two or more squads, one squad retains the capability of continuing fire by remaining in position while the other squad(s) displaces.

e. Squads displace to positions previously selected by a visual or map reconnaissance. Upon arrival at the new position areas, the squad leader selects the exact firing positions.

f. Squads employed in a general support role displace on order of the platoon leader. In a direct support role, displacement is by order of the squad leader, who notifies the platoon leader and supported unit commander of the move. When attached, squads displace on order of the supported unit commander.

g. Plans are made for supporting the consolidation on objectives, and squads are positioned to cover the likely armor approaches into the area. They occupy positions that will also support a continuation of the attack.

D-17. Pursuit

When the battalion is engaged in a pursuit or exploitation, the squads are normally attached to, or placed in direct support of, an advance, flank, and/or rear guard. The pursuit or exploitation usually dictates decentralization of control and requires initiative and aggressiveness on the part of the platoon leader and the squad leaders. When tanks are not attached to the battalion, one or more squads may be attached to the lead company. Radio is their primary means of communication.

D-18. Airmobile Operations

a. *General.* The antitank platoon plus its individual and unit equipment can be airlifted by cargo helicopters to an objective area. Since weather, altitude, and other technical factors affect the allowable cargo load of aircraft, each type load is carefully computed before movement.

b. *Offense (Assault).* Antitank weapons are required early in the assault. They are normally attached to the assault companies which are most vulnerable to enemy armor counteraction in the early stages. Antitank weapons may be initially employed on the security position(s), and subsequently may join and become attached to forward companies to increase their antitank capability.

c. *Defense.* Because of the extended frontages in airmobile operations, antitank squads are normally attached to forward companies. This will generally hold true when the defense is of limited duration. If early linkup is anticipated or offensive operations are to be initiated, then squads normally remain attached. If the defense is to be lengthy, or if the enemy situation dictates antitank protection in depth, the battalion commander may employ all or a portion of the antitank platoon in general support of the battalion to adjust quickly to armor threats as they arise.

d. *Retrograde.* When the battalion (or elements of it) is preparing an extraction by air, the squads are employed essentially as in a normal withdrawal from action. The use of Army aircraft facilitates the conduct of the retrograde operation whether air movement is made from objectives or from designated assembly areas in normal ground combat. Use of Army aviation permits timely dispersal and concentration of withdrawing forces as required. When extracting units at night by helicopter, night-vision directional aids are necessary. Thus, secrecy and deception may be compromised if forward elements are withdrawn by aircraft from their frontline position. Normally, night extraction of antitank squads by aircraft is initiated from positions in the rear of the battalion area so that any use of ground navigational aids does not compromise the withdrawal. In withdrawal under enemy pressure, it is desirable to use aircraft to move antitank squads from the least engaged area of battle and reposition them within the withdrawal zone or on the new delaying position. When units of the battalion are fighting a delaying action between successive positions, helicopters may facilitate the repositioning of squads according to antitank and fire support requirements.

APPENDIX E

HEAVY MORTAR AND MORTAR PLATOONS

E-1. Mission

a. The mission of the battalion mortar platoon is to provide close and continuous indirect fire support for the battalion.

b. A general discussion of the missions assigned to the platoon is contained in chapter 3. This appendix covers the organization and employment of the platoon.

E-2. Organization

a. The heavy mortar platoon organic to the combat support company of the infantry battalion is organized with a platoon headquarters and a heavy mortar section of four mortar squads. The platoon utilizes the 4.2-inch mortar as their primary armament.

b. The heavy mortar platoon organic to the combat support company of the mechanized infantry battalion is organized with a headquarters and four mortar squads (no section). The platoon's primary armament, 4.2-inch mortars, are mounted in tracked carriers.

c. The mortar platoon of the airborne, airmobile, and light infantry battalion is organized with a headquarters and four mortar squads and is organic to the headquarters company in the airborne infantry battalion and organic to the combat support company in the airmobile and light infantry battalion. The primary armament of the airborne mortar platoon is the 4.2-inch mortar and the primary armament of the airmobile and light infantry battalion mortar platoons are 81mm mortars.

d. Fire direction center and forward observer personnel are organic to platoon headquarters.

e. Throughout this appendix, for simplicity, the basic mortar elements organic to the five types of infantry battalion will be termed "section."

E-3. Duties of Key Personnel

a. The *platoon leader* commands the platoon and supervises the training and operations of all elements. Specifically, he—

(1) Makes recommendations for the employment of his platoon.

(2) Is responsible for the employment of the platoon in accordance with orders received from the combat support company commander, battalion commander, or commander of the unit to which attached.

(3) Assigns missions and issues orders to subordinate leaders and supervises their execution.

(4) Reconnoiters and selects position areas and controls the movement of all elements of the platoon not attached to other units.

(5) Keeps informed of the enemy and friendly situation.

(6) Establishes and maintains communication with the supported units through the FO teams.

(7) Establishes a fire control system within the platoon.

(8) In coordination with FSCoord, prepares the plan for mortar fire support.

(9) Plans, initiates, and supervises the timely displacement of all elements of the platoon not attached to other units.

(10) Maintains security.

(11) Supervises the supply of ammunition to each firing element not attached to other units.

(12) Supervises the platoon communication system.

(13) Insures that liaison and communication are established and maintained as required.

(14) Performs the duties as FSCoord when an artillery liaison officer is not provided.

b. The *platoon sergeant* is the principal assistant to the platoon leader and assists him in all matters pertaining to training and operation of the platoon. When the mortar section is separated into two elements, he normally directly supervises one element. In addition, he is in charge of ammunition resupply for the platoon and performs reconnaissance as directed by the platoon leader.

E-4. Fire Direction Center

a. *Chief FDC Computer.*

(1) Operates the fire direction center (FDC)

and plans, coordinates, and supervises its activities and training. He keeps himself informed of the tactical situation and the maneuver plans of supported units. He is responsible for the preparation of all firing data.

(2) Normally makes the decision when to fire mortars. When a target is reported, he examines its location relative to the forward units, zones of fire, and reference points. Then, based on the nature of the target, ammunition available, and the policy of the battalion commander, he decides whether the mission should be fired; the number of mortars to be fired; and the amount of ammunition to be used in engaging the target. In addition, he will determine (or request from the unit controlling or coordinating fires in the battalion zone) if the target is clear for engagement without harm to friendly units.

(3) Is responsible for maintaining ammunition records and initiating ammunition resupply action for the mortar section.

(4) Is responsible for informing combat support company or battalion headquarters of all intelligence information received in the FDC.

(5) Checks the accuracy of the computers and records and posts intelligence information received in the FDC.

(6) Positions the FDC in the vicinity of the mortars where he can control the operations of the mortar section. He informs the mortar squads how and when to fire and supervises the delivery of fires required by his mission.

b. The Next-Senior Fire Direction Computer.

(1) Operates the FDC in the absence of the chief computer.

(2) Maintains a map firing chart from which he checks the accuracy of the computer(s), and records and posts intelligence and tactical information.

(3) Moves with part of the mortar section when the section is deployed in widely separated firing positions. At least one computer with a portion of the FDC equipment and vehicles will move with each element of the section.

c. The Computers.

(1) Operate as chart operators to convert the FO requests for fires into firing data for the mortars.

(2) Formulate and issue fire commands for the mortars as directed by the chief computer.

(3) Maintain firing and ammunition records.

d. Radiotelephone Operator. Operates FDC communication equipment and drives one of the FDC vehicles.

E-5. Mortar Section

a. The mortar section leader in the infantry battalion commands the mortar section and is responsible for the training, control, and tactical employment of the section to include selection of primary, alternate, and supplementary firing positions.

b. The mortar squad leader in all infantry battalions is responsible for the training, discipline, control, and employment of the squad. He supervises the movement of the squad to designated locations, the preparation of the firing positions, and the delivery of fires by the mortar crew.

E-6. Forward Observer Teams

Forward observer teams accompany the forward units and advise the commander of the supported units of the capabilities of the mortar. They request fires for supported units, observe and adjust fire for the platoon, and may request and adjust artillery fires through the mortar platoon FDC. For a detailed discussion of the duties of the FO teams, see FM 23-92.

E-7. Communication

a. General. The ability of the mortar platoon to render effective fire support depends primarily on efficient communication. The means of communication used are wire, radio, messenger, visual, and sound. The communication plan should include the use of all available means of communication.

b. Radio.

(1) The platoon employs an internal FM radio fire direction net.

(2) The platoon leader operates in the platoon fire direction net and enters the combat support company or the battalion command net as directed.

(3) The platoon sergeant operates in the platoon fire direction net and the battalion logistical net.

(4) The radios located in the FDC are used in the following nets—

(a) NCS of platoon fire direction net.

(b) Battalion or combat support company command net.

(c) Direct support artillery battalion fire direction net. (Also used in the battalion logistical net.)

(5) The three FO teams operate only the platoon fire direction net.

(6) In the mechanized infantry battalion heavy mortar platoon, each mortar squad has a vehicular mounted FM radio which is employed in the platoon fire direction net.

c. *Wire.* Wire for the platoon is installed as required. The complexity of the system varies with the employment of the platoon and time available. When time allows, wire is installed to provide a fire direction net for communication from FO to supported companies prior to or during occupation of positions. The system is expanded as time permits. Wire systems cannot be installed in all situations, but should be employed when possible. The system should be improved as time permits.

E-8. Classification of Fires

For a discussion of fire control terminology and control measures, see paragraph 3-8 and for a discussion of fire coordination, see paragraph 5-18.

E-9. Observation

a. General.

(1) Continuous observation affords flexibility of fires and serves as a principal means of gaining information about the enemy and friendly units.

(2) The FO's area of responsibility for observation is the zone or sector of the supported unit. He must maintain a close working relationship with artillery and rifle company FO's. Together, they cover the most critical areas within the battalion sector. Mortar and artillery observers may request and adjust each other's fires through their respective FDC. For FO procedures and duties, see FM 6-40 and FM 23-92.

(3) The FAC and strike aircraft pilot must know friendly unit locations. This is usually achieved by visual marking by smoke, panel, or lights.

b. Observation Posts.

(1) Observation posts, to include alternate observation posts, are established in the area of action of the supported unit to locate targets and direct fire for that unit and other units as may be required.

(2) An observation post should have the following characteristics—

(a) Afford the most favorable view of the target area and zone of action.

(b) Afford ease of communication with the supported unit and the FDC.

(c) Not be located on a prominent landmark.

(d) Afford cover and concealment with covered routes of approach from the rear.

(3) The observer selects alternate observation posts to be used in the event hostile fires force him to move or when the primary post is blinded by smoke or haze. When practicable, the alternate

observation post should have a covered route of approach from the primary observation post.

(4) The location of the observation posts must be coordinated with those of the company mortar observers and the artillery observers to provide overlapping coverage of the area forward of and within the battle area.

(5) The observer occupies positions and displaces to locations where he can best observe the zone of action of the supported unit.

c. *Coordination of Observation.* The battalion commander, through his S2, coordinates all organic observation to provide maximum coverage. Additional observation is provided by the supporting artillery FO.

d. *Reports.* The forward observers report significant enemy and friendly activities directly to the platoon FDC.

e. *Aerial Observation.* Army aircraft observers may observe and adjust mortar fires. Direct radio communication is established between the FDC and the observation aircraft (FM 1-100 and FM 23-92).

E-10. Liaison

The platoon establishes and maintains continuous liaison (wire and/or radio and/or liaison personnel) with battalion. During the planning phase and critical phases of operations, the platoon leader and/or the combat support company commander may be with or near the battalion commander. The FO teams coordinate with artillery FO and the rifle company commanders in whose areas they are operating. The platoon leader and/or the combat support company commander coordinates with the artillery liaison officer of the direct support artillery battalion at the infantry battalion command post.

E-11. Fire Direction

a. The definitions, objectives, and techniques of fire direction for indirect firing and mortar gunnery are covered in FM 23-92. The purpose of fire direction is to achieve—

(1) Continuous and accurate fire support under all conditions of weather and terrain.

(2) Prompt massing of fires.

(3) Flexibility of fires.

(4) Simultaneous fires on numerous targets.

b. The FDC is that element of the platoon, consisting of personnel and fire direction and communication equipment, that the commander uses for fire direction and fire control. The FDC normally

is located to the rear of the mortar positions within voice distance. FDC personnel control the fire missions, translate target intelligence, fire missions of higher commanders, and convert observers' calls for fire into commands to the firing unit. The efficiency and speed of execution of fire missions depend on the skill of the personnel in the use of fire direction techniques and equipment. Fire direction personnel, their duties and functions are outlined in paragraph E-4.

c. To insure adequate coverage of targets and to avoid duplication of effort, the battalion FSCoord integrates the fires of the mortars and the supporting artillery at the battalion command post.

E-12. Fire Support Planning

a. *General.* The principles governing coordination of fire support described for higher command level are applicable within the battalion.

b. Mortar Fires.

(1) *Responsibility and control.* The battalion commander, or the commander of the unit to which mortar units are attached, is responsible for the planning, coordinating, preparing, and delivering of fires. The platoon leader and/or the combat support company commander performs these functions for the battalion commander. They give priority to calls from their parent battalion; however, the platoon may, upon approval of the battalion commander, fire on call of other units when such firing will not interfere with firing in support of the battalion.

(2) *Characteristics of mortar.* The mortar has certain characteristics that must be considered in fire planning; for example, its—

- (a) High rate of fire.
- (b) Ability to fire from and into deep defilade.
- (c) Steep angle of fall resulting in a large lethal area.
- (d) Capability of employment close to mask for protection against enemy fire and observation.
- (e) Relatively large dispersion pattern.
- (f) Displacement capabilities and limitations.

c. Fire Planning.

(1) Fire planning involves the following principles:

- (a) Close and continuous support of the attacking or defending troops.
- (b) Maximum prearrangement of fires.
- (c) Cooperation with adjacent units.
- (d) Continuous planning.

(2) For a more complete discussion, see paragraphs 3-8 through 3-11 and appropriate paragraphs for the particular type of operation or maneuver being conducted.

E-13. Reconnaissance, Selection, and Occupation of Position

a. *General.* The purpose of prior reconnaissance and selection of mortar positions is to facilitate rapid movement of mortars into position to insure close and continuous fire support and to provide flexibility of movement. The platoon leader and/or the combat support company commander must keep themselves informed of the current situation and anticipated future operations in order to effect timely reconnaissance, selection, and occupation of firing positions. Position areas or routes selected are reported to the battalion S3 and FSCoord. Coordination of the platoon and supporting artillery positions is a responsibility of the FSCoord. Procedures followed by the platoon in reconnaissance, selection, and occupation of position parallel to those outlined in FM 6-140.

b. Reconnaissance.

(1) Position reconnaissance involves a search for locations for the various elements of the platoon, to include firing positions, command posts, and observation posts. Mortar range limitations make it imperative that reconnaissance for new firing positions be continuous. In addition to the primary position, alternate and supplementary positions must habitually be reconnoitered and selected. If time permits, these positions and the routes between them are prepared. Reconnaissance parties should be limited to the personnel and vehicles actually required.

(2) Section and squad leaders recommend position areas from which they can accomplish the desired fire support. Continuous reconnaissance is necessary to locate the best positions.

c. *Selection.* It is desirable to select position areas which provide concealment and defilade, sufficient space for dispersion, and terrain adaptable for defense of the unit. The only essential requirement of a position area is that it permits accomplishment of the mission. Normally, positions are located further forward in offensive operations and more rearward in defensive situations. This precludes the requirement for early displacement to support advancing attack companies. It also permits continuous fires in support of the reserve company if committed against a penetration in the battalion sector. Because of the depth of the battalion sector, it may be necessary to have two squads support the COP initially from one loca-

tion, withdraw (when the COP withdraws) to another location from where fires can be provided for forces on the FEBA and to support blocking positions within the battle area. When selecting the latter location, consideration is given to the minimum range of the mortar. The high-angle firing characteristics of the mortar permit wider selection of positions than is normally considered for artillery weapons. Mortars can be positioned in small openings in woods and close to the base of hills or bluffs; ravines may also be utilized. These areas offer some protection from enemy observation. When necessary, the mortars are hand-carried to positions not accessible to prime movers. Desirable characteristics for mortar positions include—

- (1) Dry, well-drained ground, accessible to weapons carriers and free from large stones and other obstructions.

- (2) Availability of alternate positions.

- (3) Location within or near reserve unit perimeter when such location would not interfere with the mission of either unit.

d. Occupation. When selecting a position, the platoon leader must formulate a plan for occupying the area selected, to include location of the weapons, vehicle park, wire routes, and routes into the position. After formulating his plan, he issues necessary orders for its execution, including a general plan for communication and security.

- (1) On occasion, positions may be occupied only long enough to adjust on targets, and then the weapon and crew moves to a covered and concealed area until a fire mission is required. In open terrain, the primary position may be selected but not immediately occupied if enemy air is active. Fire data is prepared as completely as possible without registration. Since these procedures slow fulfillment of fire requests considerably, they are used only when absolutely necessary.

- (2) In areas where terrain restricts frequent movement and the weapon is to remain in one position for an extended period, a protective wall on each side of the weapon and emplacements for the ammunition and crew are constructed.

E-14. Security

a. Firing Positions. All elements of the platoon must be positioned to best accomplish their mission. Within the requirements of the mission, mortar units normally are located adjacent to reserve elements, thus increasing their own security. In some instances, position areas cannot be located near reserve elements; therefore, mortar personnel must be trained to occupy, organize, and

defend their positions when necessary. Positions are chosen which enhance local security by proximity to friendly troops. Commanders of nearby units should be notified of the weapon position and its provisions for security.

b. Responsibility. Security is a responsibility of command, and measures to be taken are stated in orders. These orders outline the security for all elements of the platoon from ground, air, nuclear, nonnuclear, and CBR attack. When planning security measures, the platoon leader considers the orders of the battalion commander or combat support company commander, the effectiveness of available weapons, the proximity of friendly troops, and the enemy's capabilities.

c. Organizing for Security.

- (1) The platoon habitually provides within its means a defensive perimeter which incorporates its organic weapons and vehicles. Desirably, the platoon organizes its defense in conjunction with infantry units near its positions.

- (2) Air defense measures consist of passive means such as camouflage, concealment, and dispersion. During a motor march, air guards are designated.

E-15. Displacement

a. General. To carry out its mission of close and continuous fire support, the platoon must displace promptly from one position to another. Effective planning and reconnaissance reduce the time that weapons are out of action during a displacement and should be continuous. The scheme of maneuver of the supported unit influences the time and method of displacement and the location of new positions. Units normally displace by vehicle; however, under many conditions, it may be advantageous to displace by Army aircraft, particularly in difficult terrain.

b. Methods.

- (1) *Two echelons.* Two squads displace with adequate ammunition to support normal fire requests and FDC personnel to compute firing data and operate a radio. The remainder of the platoon displaces when the first squads to displace are ready to fire.

- (2) *One echelon.* This method displaces all mortars at one time. This method is normally the least desirable of the two and should not be used except in special circumstances (airmobile operations, etc.) because the mortar section will not be capable of providing continuous fire support for the battalion during the conduct of the displacement.

E-16. Class V Supplies

a. *General.* Class V supplies as related to the platoon include ammunition, pyrotechnics, and mines. The platoon leader is responsible for the supply of ammunition to his platoon, except for those elements attached to other units. In such cases, the commander of the unit to which the elements are attached is responsible for their ammunition supply. Mortar ammunition is available with high explosive, smoke and illuminating agents. Heavy mortar ammunition is also available with chemical agent fillings (FM 23-92).

b. *Ammunition Loads.* Replacement of basic loads to keep pace with expenditure of ammunition is a command responsibility. Only that ammunition necessary to meet anticipated needs is unloaded at positions; the remaining ammunition is kept mobile.

c. *Resupply.* In the infantry, airborne infantry, and light infantry battalions, mortar squad vehicles will normally be used in obtaining ammunition from the combat trains by supply point distribution. In certain circumstances (e.g., when a move is anticipated), distribution may be by vehicles from the support platoon (unit distribution). In the mechanized infantry battalion, resupply is by transportation from the support platoon (unit distribution). Ammunition is normally carried directly to the squad position. Airmobile infantry

battalions will also use unit distribution for resupply of mortar squads and will normally utilize aircraft to deliver ammunition.

d. *Ammunition Supply During Offensive Combat.* When heavy expenditures are expected because of preparatory fires or other special firing missions, ammunition in excess of the prescribed basic load may be required. In this case that ammunition required by the special mission is obtained. Resupply may be effected by Army aircraft, especially in rough terrain.

e. *Replenishment During Defensive Operations.* Ammunition requirements for defensive operations are estimated before the action. When heavy expenditures are anticipated, additional ammunition is pre-positioned at the weapon positions. Ammunition placed at weapon positions should not exceed anticipated expenditures.

f. *Replenishment During Retrograde Movements.* Resupply is seldom made to forward areas. Sufficient ammunition for contemplated action is left with each unit. The battalion S4 pre-positions ammunition along routes of withdrawal. When vehicles are not available to establish mobile distributing points, limited amounts of ammunition may be placed on the ground. If for any reason ammunition placed on the ground is not expended or evacuated, and capture by the enemy is imminent, it is destroyed or rendered unserviceable, before the position is evacuated.

APPENDIX F

BATTALION COMMUNICATION SYSTEM AND COMMUNICATION PLATOON

Section I. INTRODUCTION

F-1. General

a. The battalion commander is responsible for communication within the battalion and for the battalion functioning as part of the division and/or brigade signal system. Subordinate commanders of the battalion are responsible for the communication systems within their commands.

b. A properly established communication system provides the commander with parallel means of communication for efficient command, control, and administration of his unit. The system provides the commander with the capability to control the actions of his units; to coordinate supporting fires; to receive and transmit orders and information; to maintain contact with higher, subordinate, attached, supporting, and adjacent units; and to coordinate combat support and combat service support matters.

c. Establishing and maintaining communication between units is governed by the following rules—

(1) The higher unit is responsible for establishing and maintaining communication with subordinate (including attached) units and units under operational control.

(2) A supporting unit is responsible for establishing and maintaining communication with the supported unit.

(3) Communication between adjacent units is established and maintained as directed. In the absence of specific instructions, the commander of the unit on the left establishes and maintains communication with the unit on his right. Lateral radio communication among battalions within a brigade is habitual.

(4) Although one unit is specifically charged with establishing communication with another unit, if communication is lost, all affected units attempt to regain it immediately. However, the unit that has the initial responsibility for the establishment of communication retains that responsibility.

F-2. Organization and Functions

a. The communication platoon installs, operates,

and maintains all communication facilities within the battalion headquarters. In addition, the platoon maintains communication to the next higher headquarters, the rifle companies, combat support company, elements of headquarters company, and attached and supported units. The platoon provides continuous communication for the battalion headquarters by using all means of communications.

b. The battalion communication platoon is commanded by the battalion communication officer in addition to his duties as special staff officer.

c. In addition to personnel organic to the communication platoon, the battalion headquarters is provided personnel to operate communications equipment within the battalion headquarters section.

d. The general functions of the platoon include—

(1) *Maintenance.* Radio mechanics perform organizational maintenance of signal equipment organic to the battalion headquarters company. They also provide some backup organizational maintenance for the rifle companies and the combat support company. Signal equipment from all battalion elements is evacuated through the communication platoon.

(2) *Message center.* The message center functions as the battalion communication center. It includes all message-handling facilities.

(3) *Wire.* The wire section installs the wire system of the battalion. This system includes lines to the commander, staff, elements of the headquarters company, subordinate companies, and attached units when appropriate.

(4) *Radio.* The communication platoon operates a station in the battalion FM logistical net as required and provides a radio operator to assist the S3 in operating the battalion command NCS when required.

F-3. Battalion Communication Nets and Circuits

a. The battalion maintains communication with

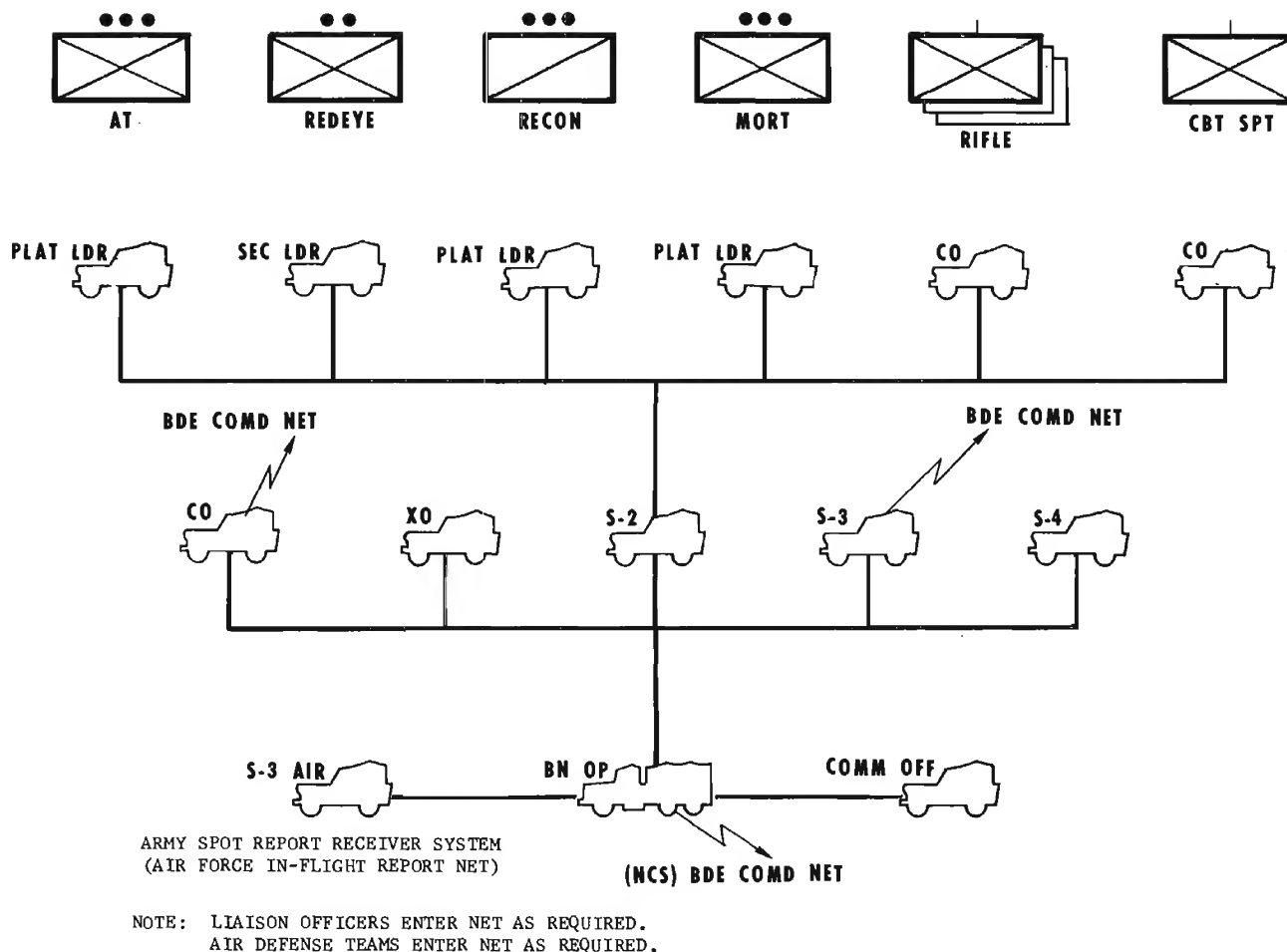


Figure F-1. Type infantry battalion command net.

higher and adjacent headquarters over wire circuits provided by the division and/or brigade communication system and by direct lateral circuits between battalions whenever possible. Battalions also operate subordinate stations in the brigade and division radio nets as required by those headquarters.

b. The battalion normally maintains the following radio nets to subordinate units—

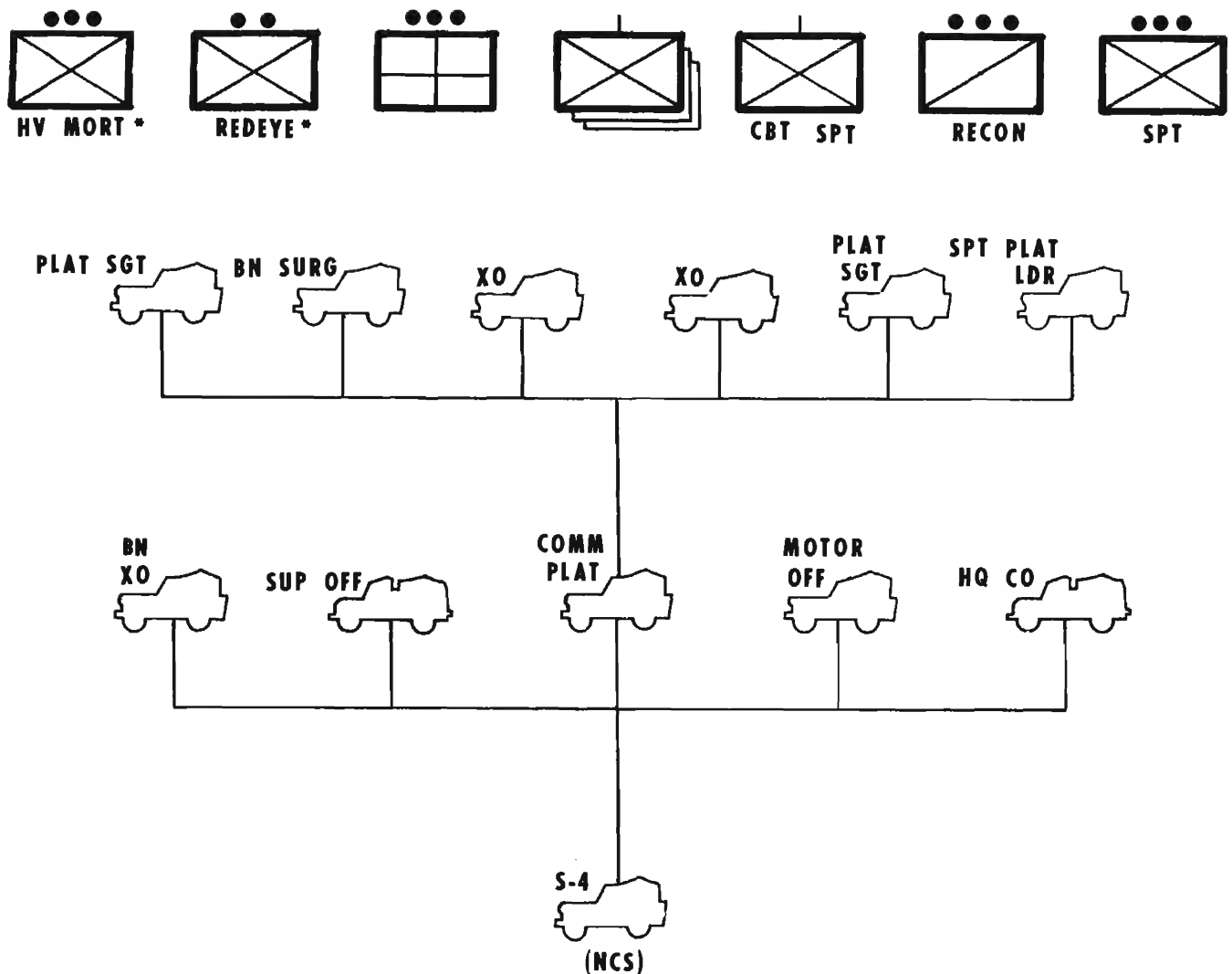
(1) *Battalion command net FM.* Tactical command and control from the battalion commander to commanders of subordinate and attached elements and staffs is provided by the command net. Battalion staff members also operate in this net. The net is controlled by the S3 for operational interstaff coordination and communication to subordinate and attached elements. Supporting elements such as artillery, engineer, and tactical air representatives may be included in this net. For a type command net, see figure F-1.

(2) *Battalion logistical net FM.* This net is used for the transmission of administrative and logistical messages, primarily between rifle com-

panies, the support platoon of battalion headquarters company, the command post, and combat trains area. The battalion S4 operates the net control station and uses the net to contact the field trains. The rifle and combat support company executive officers and certain staff members also operate in this net for coordination of administrative and logistical matters. For type logistical nets, see figure F-2.

(3) *Battalion intelligence net FM.* This net is optional and is utilized to relay intelligence information from units in contact with the enemy to battalion headquarters without interfering with transmissions on the battalion command net. The battalion S2 operates the net control station and all subordinate or attached units may enter the net when they have intelligence data to submit.

c. The battalion, when organized for combat, includes supporting elements which may be controlled through the battalion command and/or logistical net. These elements may also maintain communication with their parent organization. In-



*WHEN REQUIRED

Figure F-2. Type infantry battalion logistic net.

cluded are artillery, engineers, medical, ordnance, and other elements.

F-4. Radio/Wire Integration System

a. An FM-voice radio/wire integration (RWI) station is normally operated at all division forward area signal centers to connect mobile FM radio stations into the division communication system. Normal radio procedures must be used.

b. This system is used to permit mobile FM radio stations to contact elements of the division through the switched telephone system. It also can be used to provide communication between widely separated FM radio stations which are operating beyond the rated range of either radio set.

F-5. SOI and SSI

a. *Signal Operation Instructions (SOI)*. An SOI

is a type of combat order issued for the technical control and coordination of communication within a command. The SOI includes items covering codes and ciphers, radio call signs and frequencies, telephone directory and visual and sound signals. Current items are listed in the index to the SOI. The division/separate brigade SOI is prepared by the signal officer and distributed to the brigade or battalion as appropriate. Divisional brigades receive adequate copies of appropriate items of division SOI for distribution to attached battalions. Extracts of the division/separate brigade SOI are prepared by the battalion communication officer and issued as required. Issue of the SOI is restricted in both content and extent to reduce the risk of compromise in the event of capture.

b. *Standing Signal Instructions (SSI)*. SSI may be issued in a separate publication, or the information can be included in the SOI. The SSI in-

cludes operational data not subject to frequent change and instructions for the use of the SOI. The SSI is prepared by the division/separate brigade signal officer and distributed to the brigades or battalions as appropriate. Divisional brigades receive adequate copies for distribution to attached battalions.

F-6. Communication Standing Operating Procedures

The battalion communication SOP is based on and conforms to the brigade communication SOP. The battalion communication officer prepares the communication SOP as part of the battalion SOP for the commander's approval. Periodic revision of the battalion SOP is necessary to maintain its effectiveness and for conformance with the brigade SOP. An SOP is particularly applicable to the communication platoon because many of the operations of the platoon are generally the same regardless of the type of tactical operation being conducted. The platoon is not bound to its SOP to the extent that flexibility and individual initiative are destroyed.

F-7. Signal Supply

a. Authorized items of signal equipment are prescribed in tables of organization and equipment. Additional equipment may be authorized by higher commanders. Initial supply and requests for replacement and supplies are made through normal supply channels. The supply section of the support platoon prepares the requests for/and supervises the distribution of communication supplies (except repair parts) based upon informal requests submitted by the communications officer. Unserviceable signal equipment that cannot be repaired or replaced by the signal repair sections of the forward support company of the division maintenance battalion is normally replaced by direct exchange for serviceable items from the maintenance float at the division maintenance battalion or support battalion of a separate brigade.

b. The items and quantities of repair parts and maintenance related supplies required to be on hand or on order at the user level is listed in the prescribed load list (PLL), DA Form 2063-R. The procedure for replacement of the PLL is described in AR 735-35. Replenishment of these items, except for cryptographic supplies which are provided by the signal battalion, is provided by the forward support company of the maintenance battalion or by the support battalion of separate brigades.

F-8. Maintenance of Signal Equipment

See appendix H.

F-9. Communication Security

a. Communications security is the protection resulting from all measures designed to deny to unauthorized persons information of value which might be derived from the possession and study of telecommunications, or to mislead unauthorized persons in their interpretations of the results of such study. Communications security includes cryptosecurity, physical security, and transmission security. All individuals who transmit radio messages must be concerned particularly with security. The commander must insure that communication security orders and regulations are understood and observed. He establishes security by stating general principles in the unit SOP, by announcing before an operation specific security requirements or problems which may be encountered in that operation and by making security decisions during the operation. When prompt action is called for, he considers the time in which the enemy can act on the information contained in a clear-text message. He then decides whether the urgency of sending a message in the clear outweighs its value to the enemy. Messages that may compromise plans, operations, or cryptosystems of other units are not transmitted in the clear without command authorization. The mission of the battalion makes it an especially lucrative target for signal intelligence and electronic warfare exploitation. The battalion must utilize all available means to reduce the effect of such exploitation and its impact on unit operations.

b. Physical security protects the signal equipment and classified documents (including plain-language copies of messages and carbons) from capture, damage, or loss. Complete items such as SOI codes and ciphers are limited in distribution. Before a command post is vacated, it is inspected for messages, carbons, cipher tapes, and copies of maps or orders. Wire lines are patrolled to prevent enemy tapping if that threat exists. When SOI, codes, or cryptographic equipment are lost or captured, the facts are reported promptly to the next higher commander. Instructions are issued on how to destroy equipment and classified documents to prevent their capture or use by the enemy.

c. Cryptosecurity means technically sound cryptosystems and strict observance of instructions to prevent or delay the enemy from reading messages. Time spent in encrypting gives a high return in security. The use of cryptosystems other than those authorized by the unit SOI normally compromises security; therefore, unauthorized codes or cryptosystems should not be used. Security hazards may be minimized by being brief and

avoiding stereotyped phraseology (particularly at the beginning and end of a message). Identical messages are not sent in both clear and encrypted text. When using clear text, landmarks that can be associated with encrypted map locations are avoided as references. When messages cannot be sent in the clear, individuals and small units that do not have cipher devices use prearranged message and operation brevity codes. When using security codes, clear and encrypted text (except coded map locations) are not transmitted in the same message.

d. Transmission security limits the enemy's ability to intercept transmissions and prevents him from using our communication systems for deception. A message is transmitted by the most secure means available, consistent with its prece-

dence. Radio is particularly susceptible to interception, position-finding, traffic analysis, and deception. Radio operators must be warned of the dangers of giving information to the enemy through faulty operating procedures or techniques. Operators and personnel preparing radio messages must be aware of the enemy's ability to gain information from radio traffic. Those transmitting clear-text messages by voice radio use prescribed radio-telephone procedure and preplan the content and wording of each transmission. They use prescribed authentication systems and eliminate unnecessary transmissions. A high standard of net discipline and training among operators is essential in maintaining communication security. Training in the correct procedure is continuous. For additional information on communication security, see AR 380-5 and FM 32-5.

Section II. COMMUNICATION AND THE COMMAND POST

F-10. Selection of Command Post Location

a. *Signal Communication Requirement.* Command posts are located to facilitate signal communication. An improperly located command post may delay the establishment of communication at a critical time or make maintenance of effective communication impossible. The principal considerations for the command post location with respect to signal communication include—

(1) Effect of distance and terrain.

(2) Necessity for wire routes to the front and rear (permitting the prompt establishment of wire communication when possible).

(3) Effect of powerlines, electrical stations, hill masses, dense woods, and distance (on radio communication).

(4) Proximity to suitable terrain for airfield. Minimum requirement is proximity to open terrain for use of airdrop and pickup of messages and surface-to-air panel display.

(5) Necessity for line-of-sight locations visible only to friendly troops (for use of visual communication).

b. *Routes of Communication and Traffic Conditions.* Since all communication facilities center at the command post, roads into and out of it and the traffic to be expected on these roads influence its location. Messengers, wire teams, command vehicles, and other vehicles constantly use the communication routes from the command post to subordinate and higher units. The absence of suitable communication routes causes delays and makes tactical control difficult.

F-11. Communication Considerations for Command Post Interior Arrangement

a. The battalion adjutant (S1) is responsible for the interior arrangements of the command post. He selects the locations for all activities except the communication installations. The battalion communication officer selects the locations for these. During training, an SOP for the command post arrangement is normally drawn up in schematic form to show the location of command post installations and activities in their relationship to each other. This SOP is used as a guide with modifications made as required by the terrain and the tactical situation.

b. The commander and his staff are situated to permit efficient operations. The characteristics of the means of communication are considered in locating communication installations to serve the commander and staff in the best possible manner. Since the operations center is the hub of the command post, its location must be selected for the best communication possible.

c. The message center is located at the natural entrance to the command post so that incoming messengers may find it easily and outgoing messengers can be dispatched quickly. A messenger station is nearby. Motor vehicles used by the messenger are located conveniently with respect to the message center and messenger station. Arrival of unit messengers is made known to the operations center immediately.

d. Radio stations are located at a site that provides the maximum efficiency in transmission and reception. The site should facilitate location of the

panel display, message-drop, and message pickup areas; preclude mutual interference between radio sets and the possibility of radios being located by enemy direction-finding equipment; and facilitate the local security requirement. Remote control equipment is used to interconnect the radio at its site and the user at his place of duty.

e. The panel display, message-drop, and message pickup areas should coincide, when practicable, and be near the radio station whose personnel are used for their operation. Level, open ground, free from high weeds and brush and removed from bodies of water is preferable. The panel display area should be situated so that observers can read displays at side angles from the vertical. Shadows are avoided, where possible. An unobstructed approach by air to the message pickup area is required.

f. The switchboard is installed in a location convenient to incoming wire circuits and as free from noise and interference as possible.

g. Telephones are installed as required, according to the priority established in the battalion SOP.

F-12. Communication Operations in Command Post

a. The command post is organized for 24-hour operation. During less active periods, the personnel take every opportunity to rest and prepare for more active periods. The personnel on duty are rotated so that they have an opportunity to rest. Communication personnel are continuously prepared to establish new channels of communication and maintain existing channels. Wire lines are particularly vulnerable to enemy fire and are repaired promptly when damaged. Sufficient means of communication must be available at all times to transmit and receive messages rapidly and efficiently.

b. All incoming messengers deliver their messages to the message center; the messages are signed for and delivered to the appropriate agency or staff section by message center personnel.

c. Outgoing written messages are usually sent through message center. The message center records include a message log (a listing of all outgoing messages and messages coming in by messenger), a means chart (a record of the electrical means of communication available), a live file (duplicates or skeleton copies of outgoing messages), and crypto file (a clear text copy of all outgoing encrypted messages). A dead file is turned over daily to the adjutant for disposition. Normally, logs are closed out as of 2400 hours. Officers who send or receive written messages that do not pass through the message center must insure that a synopsis of each message is made available without delay for entry in the unit journal.

d. Vehicle traffic in and out of the command post is strictly controlled. Visitors are stopped at a dismount point away from the command post proper and required to walk to their destination. Visitor vehicles are sent to the parking area.

F-13. Displacement of Command Post

Displacement of the command post is coordinated to avoid disrupting communication and losing control. Before a location is changed, the minimum communication facilities required at the new command post should be established. This requires that the communication officer be notified well in advance of the estimated time of displacement. Other units concerned are notified of the contemplated change. The battalion communication officer coordinates the displacement of the command post with the brigade communication officer to insure continuous communication during displacement. Communication at the new command post is checked prior to opening the new command post and closing the old one.

Section III. COMMUNICATION IN TACTICAL OPERATIONS

F-14. Communication in Movement To Contact

a. Communication in route column is normally limited to that of transmitting orders. During movement in tactical column, communication is provided between the battalion march command post and the brigade commander, adjacent columns, reconnaissance and security elements, subordinate unit command posts within the column, and the battalion trains. Communication also is

maintained within units in the column primarily by radio and messenger (foot, motor, and air) supplemented by visual and sound signals. When secrecy is necessary, use of radios is restricted or they are placed on listening silence. Orders for the march cover the axis of the command post displacement, use of the means of communication, and command post location. When information required in the order is covered in the unit SOP, the order merely refers to appropriate parts of the SOP.

b. Radio is an effective means for controlling units during a march. Command nets may be organized, to include platoons. Some secrecy of movement is achieved by using codes and by reporting positions in reference to phase lines, checkpoints, and march objectives. Radio ranges are reduced during movement and when line-of-sight locations cannot be selected. Army aircraft are helpful in maintaining radio communication.

c. Messengers are used by all units during a march. Foot, motor, and air messengers are used from front to rear and between adjacent columns. Messages can be exchanged between moving vehicles. Army aircraft messengers facilitate communication between adjacent columns, to the distant command post of higher commander, and within extended columns. Before the march begins, messengers are informed of the route of movement, locations of command posts, and special vehicular markings.

d. Pyrotechnics may be used for prearranged messages, such as reporting when units reach march objectives or checkpoints or cross phase lines. They may also be used as messages between ground units and aircraft, and as air defense or antitank warnings. When prearranged pyrotechnic messages are to be used, lookouts are assigned areas of responsibility in which to observe for signals. Panels are kept ready to identify friendly columns, vehicles, command posts, and message-drop and pickup fields for friendly aircraft. Panel teams may leave the column temporarily to communicate with aircraft.

e. Wire normally is not laid during a march. However, commercial wire systems and existing field wire circuits may be used after coordination with, and the approval of, higher headquarters.

f. Command posts are located in the column to facilitate column control, as prescribed and announced in orders. During motor marches, the battalion command post normally travels near the head of the battalion main body. Command posts of other units in the main body are located near the heads of their respective units. During foot marches, command posts may be motorized/mechanized and move by bounds between units. A motorized/mechanized command post consists of only essential command and communication vehicles. Communication vehicles include those used for messengers, panel teams, and radios. A few wire vehicles required during or immediately after the march may also be included. Communication personnel not required during the march travel in the headquarters company march unit.

g. In the approach march, the means of communication used are radio and messenger supplemented by Army aircraft, when appropriate, and visual and sound communication. Communication security is continued. Numeral and operation codes are used extensively except when clear-text messages can be transmitted without violating security.

F-15. Communication in the Attack

a. In the attack, radio is the principal means of communication. Once the leading companies cross the LD, wire lines become difficult to maintain. The trunkline between the battalion switchboard and brigade is installed and maintained by the brigade communication platoon when possible. This service integrates the battalion into the brigade communication wire system. Normally lateral communication is by radio. Radio is used as much as possible, but for secrecy and surprise its use may be restricted until a prescribed time. The most important characteristics of radio communication that may affect the tactical situation are the communication planning range of radio sets and the compatibility of tactical communication equipment.

b. The extent of communication required by the battalion during the offense depends on its assigned mission. The battalion communication officer, in close coordination with the battalion commander and staff, insures that provisions for communications are complete, including the communication required between all combat support and combat service support units.

c. As soon as the battalion communication officer is informed of the attack plan, he makes a map reconnaissance and a tentative plan. He coordinates this plan with the S3 and then makes a ground reconnaissance, accompanied by other appropriate platoon members. He submits his recommendations to the S3 for paragraph 5 of the operation order.

d. Following the issuance of the attack order, the battalion communication officer completes the coordination of his plans with the S1, S2, S3, and S4, the mortar platoon leader, and commanders of organic, attached, and supporting units, as appropriate. He then proceeds to the designated command post area with the S1 to determine its exact location and interior arrangement. As soon as possible after the location has been approved, he contacts the communication chief and has the bulk of the communication platoon sent forward. He contacts the brigade communication officer and notifies him of the exact location of the battalion

command post at the time of opening. The battalion communication officer, communication chief, and section chiefs may precede the platoon to the designated command post location to receive orders and to reconnoiter before the platoon arrives. The remainder of the platoon continues to provide communication in the assembly area until the command post for the attack is occupied.

F-16. Communication in Defense

a. Actions and duties by communication personnel in the defense are similar to those for the attack, but the communication system is generally more elaborate. All possible steps are taken to provide uninterrupted communication.

b. The communication officer recommends the method of establishing and maintaining communication with the COP. The communication system within the COP is similar to that established by units on the FEBA.

c. Wire is the principal means of communication during defense. It is installed as rapidly as time, personnel, and equipment permit, and is continuously improved during the conduct of the defense. Wire teams from the brigade communication platoon lay and maintain two or more wire lines from the brigade switchboard to the battalion switchboard. The battalion communication platoon lays two or more lines over different routes between the command posts of the battalion and all companies and two or more lines to the elements of the headquarters company as required. This platoon also lays wire to the battalion observation post and to adjacent units wherever possible. Attached and supporting units are included in the wire system. Local telephones are installed as prescribed in the battalion SOP.

d. Radio communication normally is restricted for security reasons until contact with the enemy has been made. When adequate wire communication is available, radio is not used, but radio nets remain open in case wire communication is interrupted or becomes inadequate.

e. Messengers are a primary means of communication during the defense; scheduled messenger service may be established.

f. Visual signals requiring line-of-sight between observation posts and rear installations can be used to advantage in defensive actions. They are used in accordance with the SOI and SSI.

F-17. Communication in Retrograde Operations

Radio is the primary means of communication

during a retrograde movement; supplementary means are used whenever possible.

a. *Withdrawal Under Enemy Pressure.* In a withdrawal under enemy pressure, time is seldom allowed for detailed planning and preparation. However, to the extent possible, the communication officer anticipates and plans for communication requirements in such a withdrawal.

b. Withdrawal Not Under Enemy Pressure.

(1) In a withdrawal not under enemy pressure, plans are made to maintain communication on the old position as long as required and to provide communication during the movement to the rear and within the new position or assembly area. The communication officer reconnoiters routes of withdrawal to determine what existing wire circuits can be used to provide communication. He also reconnoiters the rear position with a view to installing a communication system there as soon as practicable. The reconnaissance is normally conducted by day, and critical points are marked (or guides are posted) so they can be easily identified at night.

(2) Necessary communication facilities and a minimum of communication personnel are left in the old position for the detachments left in contact. The communication officer remains to supervise communication. Unused wire lines are recovered or destroyed. Deceptive measures include the use of dummy radio stations to maintain normal radio activity in the old position. During movement to the rear, messenger and existing wire are the principal means of communication. Radio listening silence is maintained within units. If secrecy becomes unimportant, the higher commander directs the lifting of radio silence.

(3) The majority of the communication platoon precedes the main body to the rear position, if practicable, to establish communication facilities. Radios in the rear position listen on assigned frequencies, but remain silent until the battalion commander orders them into operation. If the tactical plan is to renew the defense at the rear position, a complete defensive wire system is established. If the withdrawal is to be followed by some other type of operation, only essential communication facilities are established within the assembly area. Reconnaissance and plans for communication in the next operation are begun immediately.

c. *Delaying Action.* In a delaying action, emphasis is placed on speed and mobility in establishing communication. Existing wire lines are used along the axis of operations insuring that all lines extending beyond the FEBA are cut and sections removed. When practicable, a minimum lat-

eral wire system is installed on each delaying position to include one line to each rifle company, combat support company and the heavy mortar platoon. Visual signals and motor or air messengers are used. Communication to distant, detached, and mechanized units usually is limited to radio and messenger. Timely reconnaissance and planning are necessary for communication on successive delaying positions. New wire lines usually are not laid for communication between successive positions.

d. Retirement. Communication during a retirement is similar to communication during movement to contact. When the enemy attempts to pursue vigorously, a series of delaying actions may be necessary to assist the retiring force. Communication is then maintained in the same way as described for a delaying action.

F-18. Communication in Relief Operations

When the battalion relieves another unit, the communication officer, accompanied by key communication personnel, precedes the battalion to become familiar with the communication system already in operation. He makes arrangements with the unit being relieved concerning the equipment and wire to be left on the position. During the reconnaissance, wire personnel familiarize themselves with all wire routes. The communication officer of the unit being relieved furnishes the incoming communication officer with a line-route map and wire and radio net diagrams. The incoming communication officer obtains as much information as possible about road conditions and routes for messengers. He evaluates conditions that may affect or interrupt radio and wire communication. The relieving unit takes over the communication system when its commander assumes responsibility for the area. When secrecy is imperative, the relieving unit adopts all measures necessary to prevent the enemy from discovering any change in the tactical situation. These measures include continuing the use of the call signs, frequencies, codes, and ciphers of the unit being relieved.

F-19. Communication in Attack of Riverline

a. Communication during an attack to force a river crossing is similar to that required in other attacks. Command posts are located close to the river to avoid early displacement and facilitate control. A minimum wire system may be installed for use during occupation of assembly areas and attack positions. The use of motor messengers in the forward areas may be restricted for security reasons.

b. Wire circuits are established across the river as soon as practicable, but the nature of river crossings requires an almost complete reliance on radio during the assault. Radios provide tactical control, fire control, and control of aircraft, and are used for administrative purposes and liaison between the various units. The heavy load placed on radio communication necessitates the establishment on the far bank of telephone (wire and radio relay) communication as soon as possible after the assault. Other means are exploited, including sound, visual, and messenger.

c. The commander of a unit may place security restrictions on radio and visual communication prior to a river crossing to conceal the operation from the enemy as long as possible. As soon as security restrictions are removed, all means of communications are used. Wire lines are extremely vulnerable to enemy artillery fire and to friendly tank and vehicle traffic. For this reason, wire lines should be buried at all crossing sites or be placed across the river upstream from the crossing sites when time allows.

F-20. Communication in Airmobile Operations

a. During a battalion airmobile operation, radio is the principal means of communication. It is supplemented by messengers and other means. The installation of a wire system is started as soon as practicable. To expedite the establishment of this system, wire-laying teams and their equipment from the communication platoon may be landed with assault rifle companies. Portable radios are habitually carried into the landing area to facilitate prompt opening of radio nets on landing. Command radio nets are usually opened prior to landing. Radio communication to the next higher commander is established immediately. Communication with close air support aircraft and naval forces, if appropriate, are provided through the TACP, FAC, and naval gunfire liaison personnel. When an airmobile operation is conducted near the seacoast, naval gunfire teams may accompany the landing and provide communication with naval support craft.

b. The size, weight, and amount of communication equipment landed with the battalion during the assault is limited. Only equipment carried with assault units in their transport aircraft is available during the early part of the operation. This equipment includes portable voice radios, field telephones, light wire, panels, small switchboards, and extra batteries. Resupply plans include equipment and supplies to meet communication requirements and to compensate for losses.

c. Communication personnel are assigned throughout air serials. Radio operators assigned to unit commanders or staff officers accompany the officer in the same aircraft. Communication vehicle drivers move with their vehicles.

d. To acquaint himself with the tactical situation and to receive additional information and orders, the battalion communication officer maintains close contact with the commander and staff. He insures communication plans are flexible to meet any of the rapidly changing situations.

e. The communication platoon, less radio operators, wire teams, and messengers on special assignments, normally assembles with the headquarters company. The communication chief checks the status of personnel and equipment and directs the implementation of the communication plan. The battalion command post is established as soon as possible after the landing.

F-21. Oral Communication Orders

During tactical operations, the battalion communication officer issues oral orders to the communication chief after the communication plan is approved. The installation of the communication system may be expedited when available team chiefs also are present. The urgency of the situation may require the communication officer to issue orders directly to the team chiefs. The communication officer's oral orders normally include:

a. Information of the enemy and friendly forces as required for the efficient operation and security of the communication system.

b. The platoon mission.

c. Specific instructions to each team chief.

d. Administrative details.

APPENDIX G

MEDICAL PLATOON AND BATTALION MEDICAL SUPPORT

G-1. General

The medical platoon furnishes medical support to include attachment of aidmen to companies; collection, emergency treatment, and evacuation of casualties; and supervision of sanitation for the battalion. The organization of the platoon includes a platoon headquarters, an aid station section, an aidman section, and an evacuation section.

G-2. Medical Platoon Headquarters

The platoon headquarters consists of the following personnel:

a. A Medical Corps Officer who is the platoon leader and acts as the battalion surgeon. His duties include keeping the battalion commander informed of the medical situation at all times and supervising the treatment and evacuation of the sick and wounded in the battalion area. He supervises the organization, employment, and training of the medical platoon.

b. A Medical Service Corps Officer is the field medical assistant. He assists in the operation of the aid station, in reconnaissance for new aid station locations, and in supervising battalion evacuation and platoon administration.

c. The platoon sergeant supervises the enlisted personnel of the platoon and assists the platoon leader and the medical operations assistant in supervising the activities of the platoon. He directly supervises the evacuation section, and maintains necessary medical and administrative records.

G-3. Airman Section

a. The aidman section consists of fifteen medical aidmen who are normally allotted on the basis of four aidmen to each rifle company and three to the combat support company. Airborne battalion aidman sections consist of only twelve medical aidmen since there is no combat support company in the organization.

b. The company aidmen (normally one with each platoon and one at a headquarters):

- (1) Provide emergency medical care to cas-

ualties and return to duty those individuals not requiring further treatment.

- (2) Arrange medical evacuation for patients who require further treatment.

- (3) Direct ambulatory patients to the battalion aid station (when available medical evacuation means are insufficient to accommodate all patients needing evacuation), or arrange for patients to be evacuated by other means.

- (4) Initiate a U.S. Field Medical Card for all casualties.

c. In addition, the aidman retained at company headquarters normally performs the following functions:

- (1) Treats the usual sick call-type cases that come to his attention, returning to duty those who require no further attention, and sending to the battalion aid station those who require additional treatment.

- (2) Operates a company aid post where casualties are collected and kept under observation until evacuated. The aid post is usually located along the route of evacuation and in the vicinity of the company command post or company trains so that the communication facilities of those installations can be used.

- (3) Coordinates and directs the activities of supporting evacuation teams operating in the company area.

- (4) Keeps the company commander informed concerning the medical status of the company.

- (5) Keeps the medical platoon leader informed of the medical status of the company.

- (6) Recommends necessary sanitation measures for the company and provides technical guidance to the vector-control detail.

- (7) Provides aidman service to the weapons platoon and personnel in company headquarters.

G-4. Evacuation Section

a. The evacuation section consists of the evacuation section sergeant and six two-man evacuation teams. Each team is composed of two aidmen, one of which is the ambulance driver.

b. Specific duties of the evacuation section include—

(1) Maintaining contact with combat elements.

(2) Evacuating litter casualties from forward areas to the battalion aid station.

(3) Administering emergency medical treatment while en route to the battalion aid station.

(4) Directing or guiding walking casualties to the battalion aid station. When litter casualty load permits, walking casualties may be transported by ambulance.

(5) Acting as messengers for medical matters.

(6) Initiating U.S. Field Medical Cards as required.

(7) Assisting in movement of the battalion aid station.

c. The evacuation teams are controlled by the platoon leader through the section sergeant to best support the tactical plan. In normal employment—

(1) One team is used in direct support of each committed rifle company. Normally the same team supports each company throughout an operation so that its members become familiar with the terrain and the tactical situation. As evacuation from the rifle platoons is normally to the company aid post, the team remains there when not transporting casualties so that its activities can be controlled by the company aidman.

(2) Evacuation teams not in direct support of committed companies are employed in general support of the battalion. These teams are used to supplement direct support teams and to support the reserve when committed. When the tactical situation dictates, the medical specialist member of the teams may assist at the aid station or function as aidman with elements of the headquarters company.

(3) In the mechanized infantry battalion, three of the evacuation teams are mounted in carrier ambulances and three in truck ambulances. The carriers permit the platoon leader to support the rifle companies with evacuation teams that have the same mobility and armor protection as the supported company. The carriers can be utilized as warming shelters for casualties in extreme cold weather.

d. Unlike other infantry battalions, the airmobile infantry battalion has no organic ambulances since helicopter evacuation is the normal method used. When secure ground lines of communication exist between the companies and the battalion aid station, the lightly wounded may be evacuated to

the battalion aid station by litterbearers or vehicles.

G-5. Aid Station Section

a. The first echelon in the system of evacuation is the battalion aid station operated by the aid station section of the medical platoon. It is usually located in the combat trains area. The aid station section consists of—

(1) Two medical assistants who are highly trained enlisted technicians capable of performing various technical procedures under the direction of a medical officer.

(2) Two senior medical aidmen who assist in the treatment of patients and operation of the aid station.

(3) Two medical specialists who assist in the operation of the aid station. One has the additional duty of driving the truck in which the aid station is transported.

b. The aid station is established as far forward in the battalion area as the tactical situation permits. It may be located farther forward in the attack than in the defense. Considerations governing the location of the aid station include—

(1) Tactical operation of the battalion.

(2) Expected areas of high casualty density.

(3) Protection afforded by defilade.

(4) Convergence of lines of drift.

(5) Evacuation time and distance.

(6) Concealment and cover.

(7) Security.

(8) Accessible evacuation routes to front and rear.

(9) Avoidance of likely enemy targets such as bridges, fords, important road junctions, firing positions, and supply installations.

(10) Location of areas suitable for landing helicopter ambulances.

(11) Communication.

c. At the aid station, patients requiring further evacuation are given emergency medical treatment and prepared for evacuation. Constant efforts are made to prevent unnecessary evacuation. Men with minor wounds and illnesses are treated and returned to duty as soon as possible. Specific functions of the battalion aid station include—

(1) Receiving and recording patients.

(2) Examining and sorting patients and returning the physically fit to duty.

(3) Giving emergency medical treatment and preparing patients for further evacuation.

(4) Monitoring personnel, when indicated by the situation, for the presence of radiological or chemical contamination prior to medical treatment.

(5) Notifying the battalion S1 of all patients processed through the aid station.

(6) Initiating U.S. Field Medical Cards for those patients not previously tagged and verifying information contained on all cards of patients evacuated to the aid station.

d. Patients are held at the aid station for as short a time as possible because the platoon has no organic shelter or mess capability. Patients requiring evacuation are held only until their condition permits them to be moved. When the tactical situation requires the aid station to hold patients, food and shelter must be provided. Prior to evacuation of patients, equipment is collected from individual evacuees. Care is taken to insure that collection of unit and individual equipment does not prevent later identification of the individual. Personal property (wallets, rings, watches) will accompany all patients who are evacuated, to facilitate identification.

e. Evacuation from the battalion aid station is performed normally by the supporting medical company. In airborne operations, it may be necessary to retain casualties in the battalion aid station pending arrival of medical battalion elements or establishment of evacuation through Air Force channels.

(1) The normal means of evacuation is by ambulances of the division medical battalion which come forward to the aid station and transport patients to division clearing stations. Patients are released to the ambulances as directed by the platoon leader.

(2) Helicopter ambulances are used to evacuate selected patients to facilities where surgery can be performed. When helicopter ambulances

are not available, other helicopters may be utilized.

f. The operation of the battalion aid station in an airmobile battalion may be the same as found in other infantry battalions. In some cases, however, aid stations may not be established by battalions, but may be established in brigade areas where they work in conjunction with supporting medical companies. Although the role of the battalion aid station and clearing station in the normal system of evacuation may be reduced by exploitation of forward aeromedical evacuation, there is no reduction in the probable need and use of unit and division-level medical service.

G-6. Communication

The medical platoon is provided access to the battalion wire system which provides communication with all major elements of the battalion and with supporting units. Radio communication equipment in the platoon headquarters consists of a radio mounted in the platoon headquarters vehicle. It is employed in the battalion logistical net.

G-7. Medical Supply

Medical supplies for the combat battalions are provided by the division medical battalion. The supplies are normally transported on ambulances going forward to battalion aid stations.

a. Expendable supplies are obtained from the supporting clearing station. When large volumes of supplies are needed during mass-casualty situations, additional vehicles will be required to augment ambulance transportation.

b. Nonexpendable medical items are obtained by direct exchange of items or informal requisitions.

c. When other than medical transportation is used to evacuate casualties, coordination must be made to insure that medical supplies are replenished promptly.

APPENDIX H

SUPPORT AND SERVICE PLATOON, MAINTENANCE PLATOON, AND BATTALION SUPPLY ACTIVITIES

H-1. General

The support platoon (infantry, airborne, and mechanized infantry battalion) is composed of a platoon headquarters, supply section, transportation section, and mess section. The service platoon of the light infantry and airmobile infantry battalion provides supply, transportation, and maintenance support; it does not provide mess support to the battalion. For simplicity, subsequent paragraphs will not differentiate between the two platoons except where essential to clarity. Refer to appendix B and the appropriate TOE for details concerning organization and equipment. For additional guidance for supply activities of a tank or infantry heavy mechanized infantry battalion task force, see FM 17-1. The general functions of the platoon are:

a. The *platoon headquarters* provides the command and control element for the platoon.

b. The *supply section* prepares formal supply requests for submission to division and supervises the distribution of those supplies when they are received. It maintains records of accountability for battalion property and computes data on usage factors for each class of supply. The supply section also operates the support or service platoon command post and, when necessary, a salvage collecting point.

c. The *transportation section* is organized and equipped to distribute class III and class V supplies. During tactical operations, part of the transportation section operates from the battalion field trains. Trucks loaded with class III and V supplies needed for the immediate support of combat operations are maintained in the battalion combat trains.

d. The *mess section* prepares and distributes hot meals to the elements of the battalion. In the airborne and light infantry battalions, the mess section is a separate organization in the headquarters and headquarters company.

e. The *supply and transport section* (light infantry and airmobile infantry battalion) performs the same functions as described in b and c above.

f. The *maintenance section* organic to the service platoon in the airmobile and light infantry battalion performs the same general functions of the maintenance platoon in the other three battalions (see para H-8).

H-2. Duties of Key Platoon Personnel

a. The *support platoon leader* is responsible for the accomplishment of the platoon mission and for the operations, movement, and security of the battalion field trains. The platoon leader operates under the staff supervision of the S4 and serves as an assistant to the S4 when required. He maintains continuous communication with the battalion S4 in the battalion logistical net and serves as the primary contact with division support command or support battalion elements located at the battalion field trains location.

b. The *supply warrant officer* is the section leader of the supply section in the infantry, airborne infantry, mechanized infantry, and light infantry battalions. In the airmobile infantry battalion, the supply warrant officer is the section leader of the supply and transport section. He supervises the submission of requests for supplies and their eventual distribution to battalion elements; he maintains the battalion property book(s) and associated records. He assists the support platoon leader in operation of the field trains. In the airmobile and light infantry battalion he also supervises transportation matters.

c. The *transportation section sergeant* in the infantry battalion or the ammunition chief in the airborne infantry, mechanized infantry, airmobile infantry, and light infantry battalions supervises the operations of the transportation section. This section is primarily responsible for transportation, storage, and distribution of class III and V items of supply.

d. The *senior mess steward* supervises the operation of the battalion mess teams.

H-3. Support Platoon Functions

a. Supply operations of the platoon include the following:

(1) *Class I.* (Subsistence items)

(a) Prepare and submit a ration request when required.

(b) Maintain and transport emergency rations.

(2) *Class II.* (Clothing, individual equipment, tentage, etc.)

(a) Receive, consolidate, prepare, and submit formal requests.

(b) Maintain records of accountability.

(c) Establish and maintain control measures for regulated items.

(d) Supervise distribution to requesting units.

(3) *Class III.* (POL products)

(a) Compute forecasts for POL products when required.

(b) Distribute POL products to the supported elements of the battalion as the tactical situation permits.

(4) *Class IV.* (Construction materials)

(a) Determine requirements.

(b) Arrange for distribution to construction sites.

(5) *Class V.* (Ammunition)

(a) Consolidate subordinate unit requests and prepare DA Form 581 (Request for Issue or Turn-in of Ammunition).

(b) Maintain informal records of issue by type and by lot number where applicable.

(c) Distribute to the supported elements of the battalion as the tactical situation permits.

(6) *Class VI.* (Personal demand items). Normally, the platoon will not become involved with personal demand items. When PX facilities are not available, the need will be met by the issue of sundry packs, a class I supply item, containing cigarettes, razor blades, soap, etc.

(7) *Class VII.* (Major end items, e.g., tanks, trucks, helicopters, etc.) Responsibilities are the same as for class II ((2) above).

(8) *Class VIII.* (Medical material including medical repair parts). Medical supplies and repair parts are obtained by the medical platoon through medical channels.

(9) *Class IX.* (Repair parts less medical-peculiar repair parts). Normally, the platoon will not become involved with repair parts supply. The requesting and distribution of repair parts is a responsibility of the communications platoon (communications equipment) and the maintenance platoon (weapons and vehicles).

(10) *Class X.* (Materiel to support nonmilitary programs, e.g., agriculture and economic de-

velopment not included in classes I through IX). Requests and distribution of class X items are as required.

(11) *Miscellaneous.*

(a) Water is obtained and distributed to the supported elements.

(b) Maps are requested through supply channels and distributed according to instructions from the S2.

(c) Salvage materiel is evacuated to the division forward salvage and maintenance collecting point.

(d) Captured enemy materiel.

1. For items which have an intelligence value, evacuate according to instructions issued by the S2/G2.

2. For items which have a supply value, evacuate according to instructions issued by the S4/G4.

b. Transportation operations of the platoon include—

(1) Transport class III and V, and, as required, other classes of supply and troops.

(2) Coordinate and supervise the use of vehicles when battalion vehicles are pooled for logistics support.

(3) Plan for the use of aviation assets when aerial resupply is dictated by the tactical situation. See appendix K and FM 7-30 for discussion of airlift of supplies.

c. Food service operations include—

(1) Preparation and distribution of hot meals to elements of the battalion.

(2) When mess teams are attached to the companies, the support service platoon operates a ration breakdown point.

H-4. Supply Procedures

a. Subordinate units of the battalion request supplies by informal means (radio message, personal visit, etc.). Formal requests are prepared and submitted directly to the division supply offices except for class III, V and IX. Class III does not require a formal request; the formal request for class V is submitted to the division ammunition office; class IX is the responsibility of the maintenance and communication platoons.

b. Unit distribution of supplies to the elements of the battalion will be used whenever feasible.

c. The evacuation of salvage materiel and captured enemy materiel will be by any available transportation moving to the rear.

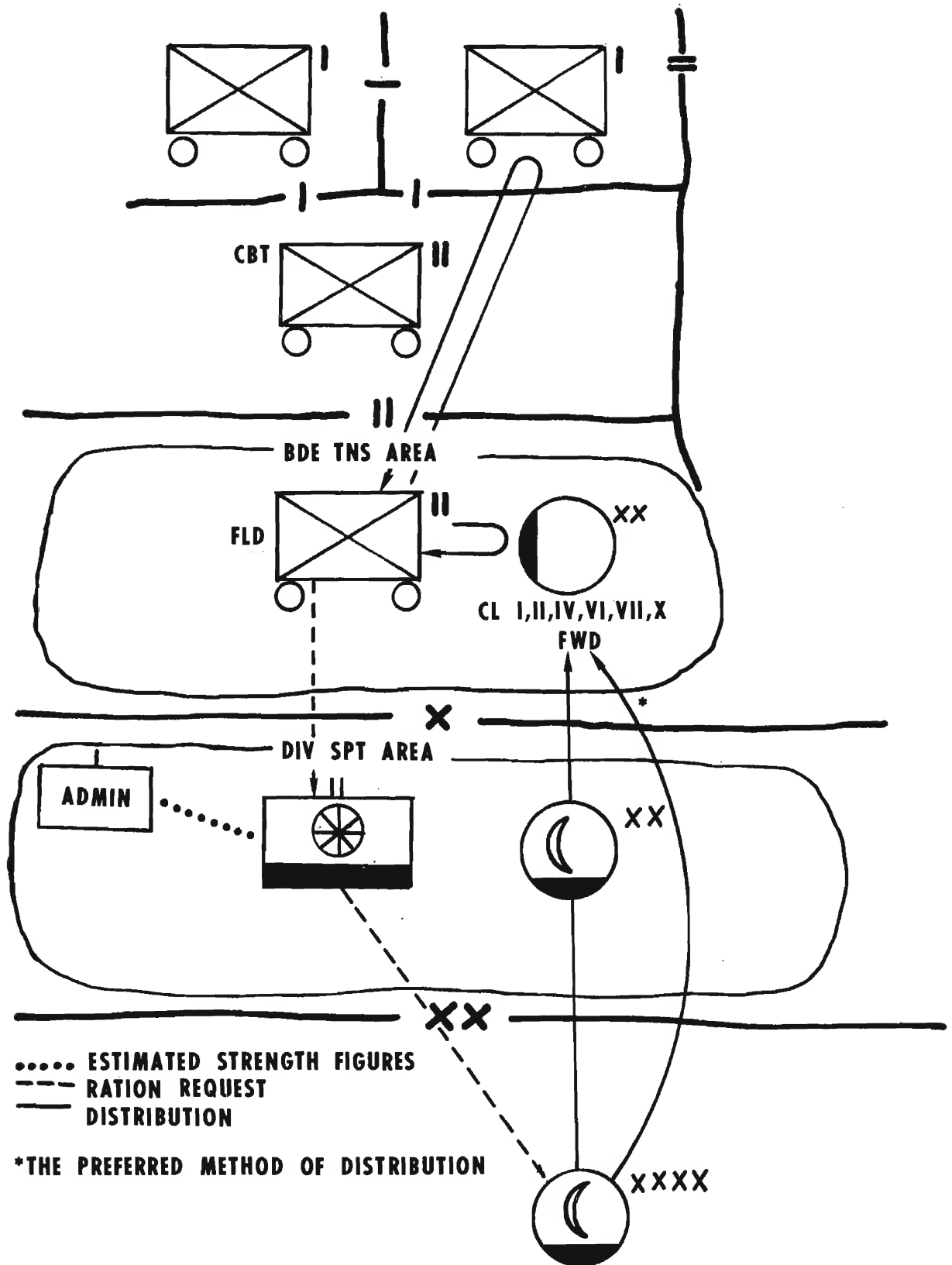


Figure H-1. Class I system of supply.

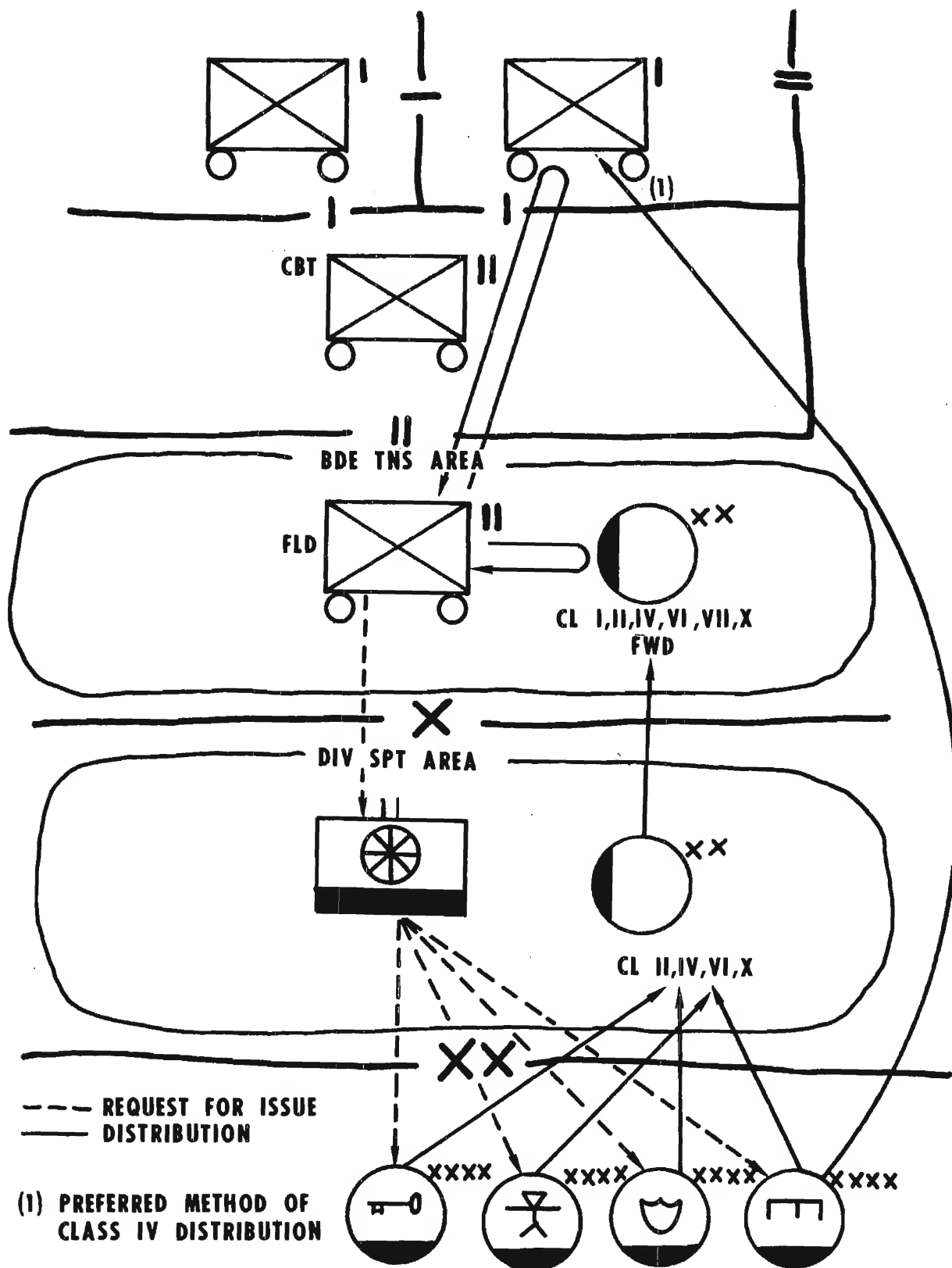


Figure H-2. Class II, IV, VI, and X system of supply.

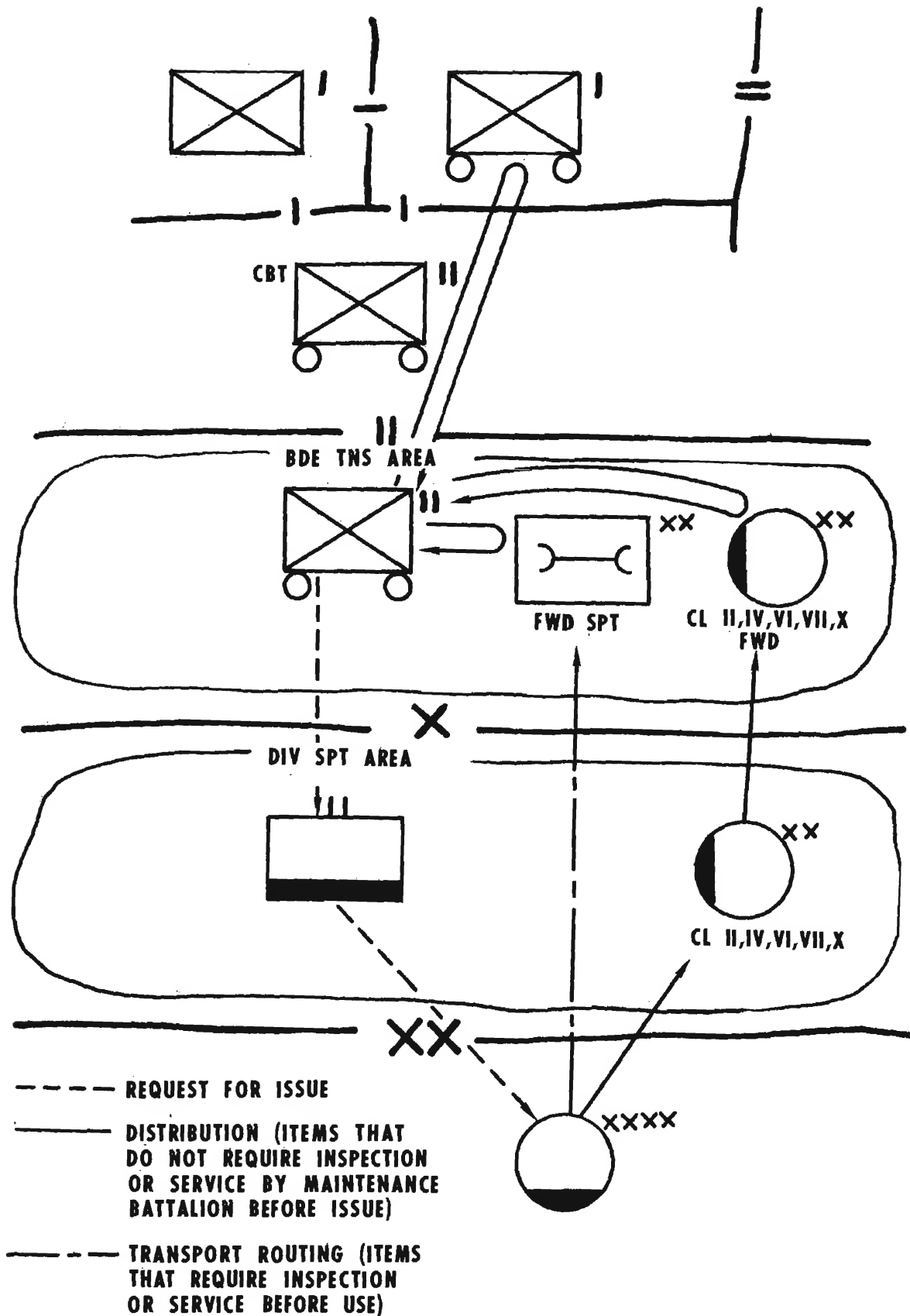


Figure H-3. Class VII system of supply.

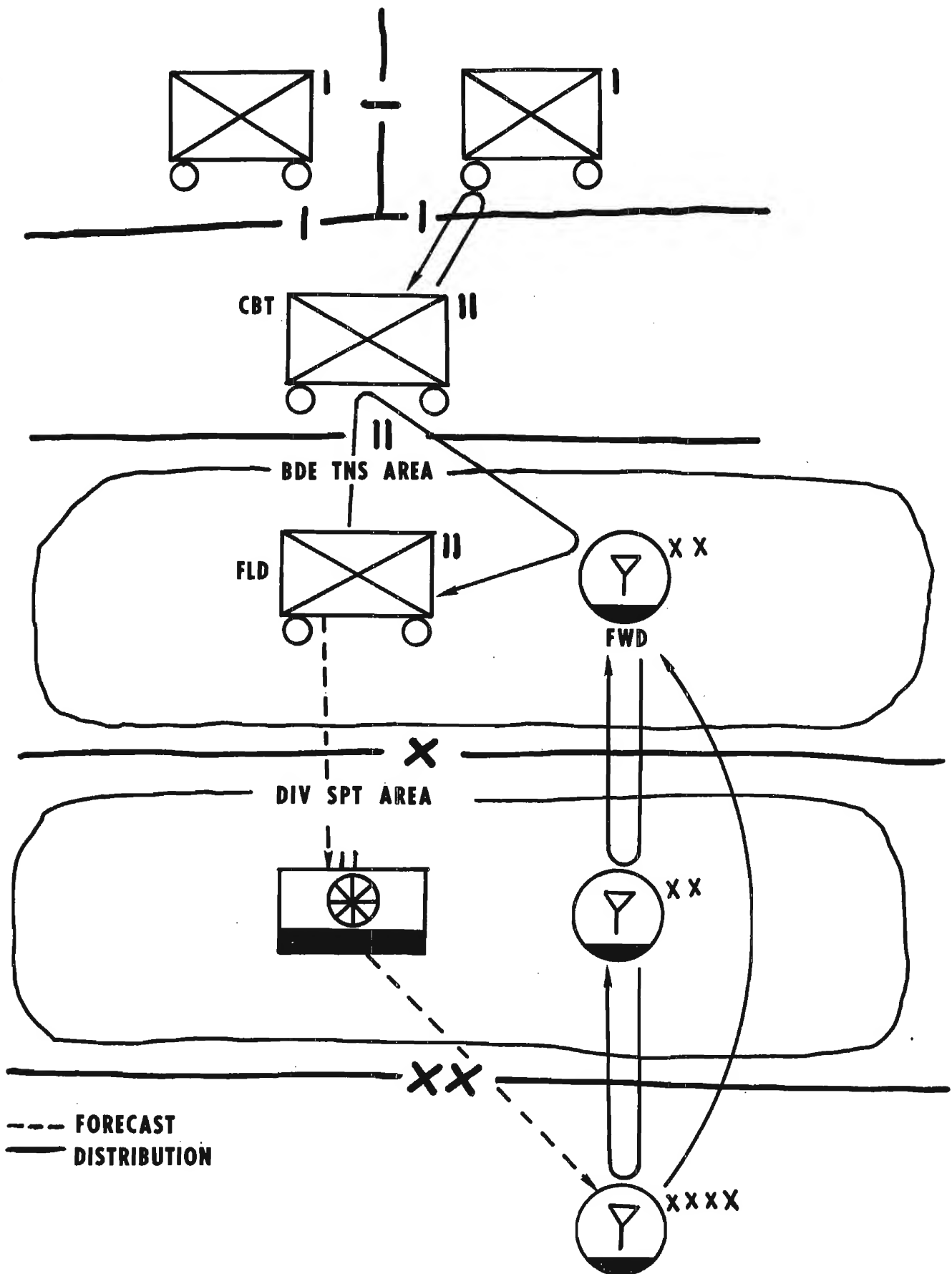


Figure H-4. Class III system of supply.

H-5. Methods of Supply

a. Class I (fig. H-1).

(1) *Loads.* Elements of the infantry battalion will normally enter combat with a prescribed number of emergency rations. These may be carried on the individual, on a prime mover, on company vehicles, on battalion vehicles, or on any combination of these means.

(2) *Cycle.* The division supply office prepares a daily ration request based upon estimated strength figures provided by the division AG. Normally, the support platoon submits a ration request only when the type of ration required differs from the scheduled issue from division (e.g., when the division plans to distribute "B" rations for a particular day and all or part of the battalion requires individual combat meals). In any event, rations are distributed to the forward class I distributing point in the brigade trains by division or field army transportation. The rations are picked up by the mess section, prepared in field trains, and delivered to the companies, preferably using mess section vehicles.

b. *Class II, VI, VII and X* (fig H-2 and H-3). Class II, VI, VII, and X supplies, with the exception of cryptographic supplies, are requested from, and provided by, the appropriate division supply element. Cryptographic supplies are provided by the division signal battalion. Items of classes II, VI, VII, and X are normally transported to the forward class I distributing point in the brigade trains by division vehicles. The items are then picked up by support platoon personnel and sent forward to the requesting unit.

c. *Class III* (fig H-4). Formal requests for class III supplies are not required. Higher headquarters may require a forecast of requirements, but normally sufficient experiences exist to predict the requirements of the battalion. The POL vehicles of the transportation section are divided between the combat trains and the field trains according to the urgency of need and the tactical situation, i.e., the requirement to provide responsive support is balanced against the threat of loss due to enemy action. The tanker(s) located at combat trains will normally move forward to refuel vehicles in company areas. When it has emptied its load, it travels to the forward class III distributing point located in the brigade trains, is refilled, and returns to the field trains. While this is taking place a full tanker will have been dispatched from the field trains to take the place of the empty tanker at combat trains.

d. *Class IV.* Requests for class IV supplies are submitted through command channels for ap-

proval. Once command approval is given, class IV supply is provided generally in the same way as II, VI, VII, and X supplies. Once the request is approved and the material allocated, the supplies will be distributed, ideally, directly to the construction site by the issuing authorities' transportation. Figure H-2 illustrates the class IV system of supply.

e. Class V (fig H-5).

(1) Definitions.

(a) *Basic load.* A basic load is the prescribed amount of ammunition authorized to be in possession of a unit.

(b) *Special ammunition load.* See paragraph 3-8.

(c) *Required supply rate.* The required supply rate is the estimated amount of ammunition required to sustain the operations of any designated force without restriction for a specified period.

(d) *Available supply rate.* The available supply rate is the rate of consumption of ammunition that can be sustained with available supplies, as announced by each commander as applicable to his command.

(2) *Cycle.* Elements of the battalion submit informal requests to the combat trains (telephone, radio, written message) for ammunition by type and amount. When unit requests are received, they are checked and recorded by the ammunition specialist. The ammunition is then issued to the requesting unit. As ammunition vehicles in the combat trains are unloaded, the empty vehicles are dispatched to the field trains, an ammunition request is prepared and vehicles are dispatched to the supporting corps support brigade ammunition supply point (ASP). En route to the ASP, the request is authenticated by the division ammunition officer. In the airborne and airmobile divisions, class V supplies are provided by the division support command. For additional information, see FM 9-6.

f. *Class VIII.* An informal method of distributing medical supplies and medical-peculiar repair parts is used in combat. Unit requests are filled, as much as practicable, by the battalion medical platoon. The battalion aid stations replenish their supplies by informal requests sent to the division clearing station by ambulances evacuating patients. The clearing station, in turn, forwards unfilled requests and any requests for replenishment of its own supplies to the division medical supply point.

g. *Class IX.* Elements of the battalion normally enter combat with a prescribed load of repair

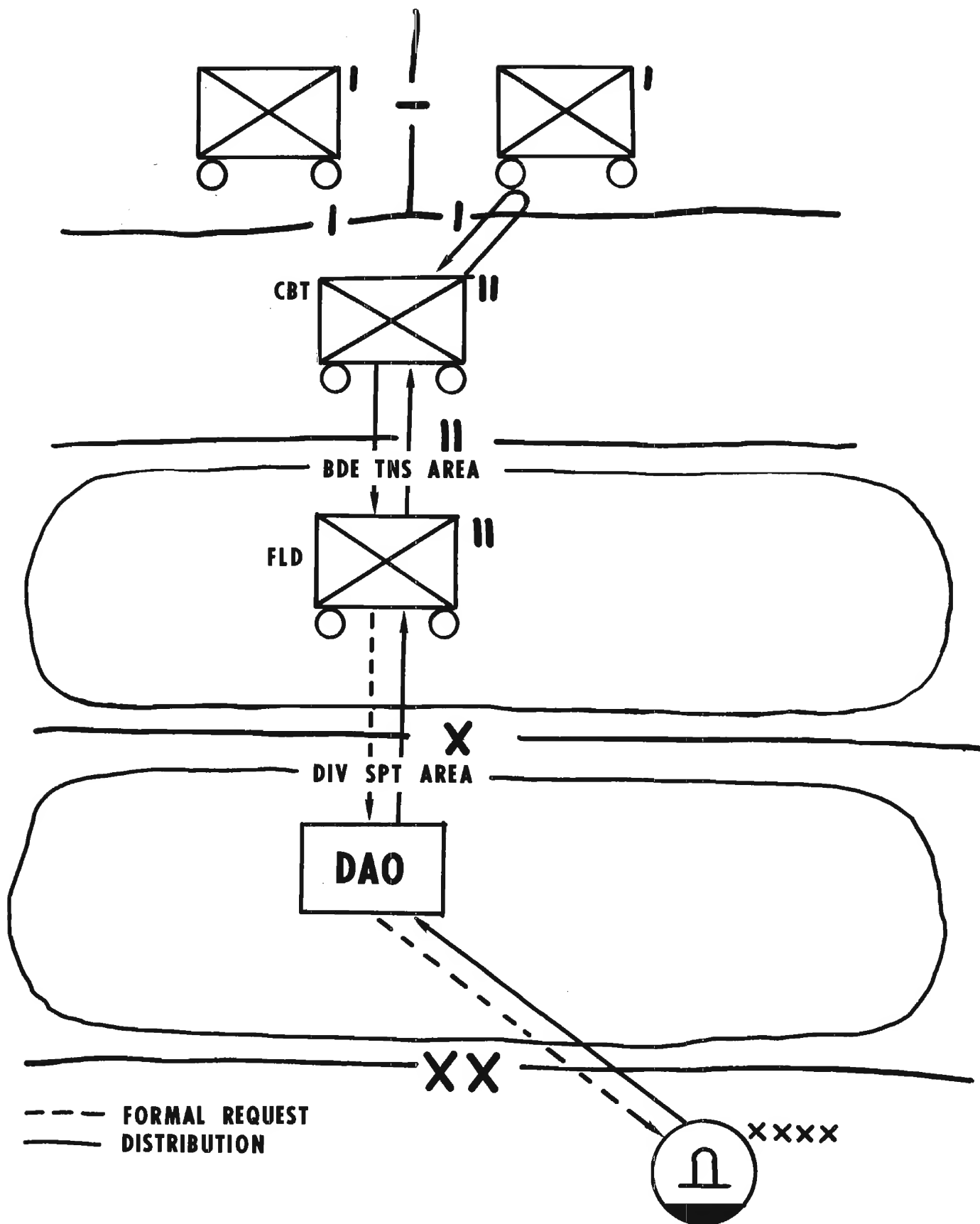


Figure H-5. Class V system of supply (infantry and mechanized infantry.)

parts and maintenance-related items. As repair parts are consumed, replenishment is requested by the communication platoon (for signal items), or the maintenance platoon (for other items). Those repair parts requested most frequently (except medical) are normally stocked and issued by the forward support company of the maintenance battalion located in the brigade trains area. Repair parts for medical equipment are processed through medical channels. Other repair parts are requested by the battalion maintenance platoon/maintenance section or communication platoon and are normally furnished directly to the user by the forward support company of the maintenance battalion. For additional information, see FM 29-30.

H-6. Aerial Resupply

a. General.

(1) The airlift of cargo and supplies is accomplished through the use of cargo helicopters of Army aviation units or cargo aircraft of the tactical air force supporting the field army.

(2) Requests for airlift can be initiated at any level of command. Requests are satisfied at the lowest echelon capable of fulfilling the requester's needs.

(3) For further discussion, see FM 61-100.

b. Airlift Requests.

(1) Requests are either immediate or preplanned.

(2) Preplanned requests are submitted through command channels to the division transportation officer. At each level of command the request is evaluated and a determination is made whether that level can satisfy the request or not.

(3) Immediate requests below battalion level are forwarded to the battalion command post by the most rapid means available. At battalion level, requests are validated by the commander or his representative and passed to the tactical air control party. The tactical air control party transmits the request directly to the direct air support center (DASC) collocated with the corps tactical operations center. Tactical air control parties at intermediate headquarters monitor the request and acknowledge receipt. SOP establish the process for approving or disapproving requests at intermediate echelons. If the request is disapproved at any echelon, the requesting unit is so notified.

c. Terminal Guidance. Terminal guidance for aerial resupply is the responsibility of the receiving unit. For a discussion of terminal guidance techniques, see FM 57-38.

H-7. Mess Management

a. Organization. The battalion mess section is organized so as to provide one consolidated mess for the entire battalion, or teams of cooks and kitchen equipment to support the companies of the battalion separately. Usually, the mess is located in the battalion field trains and operates under the supervision of the support/service platoon leader. The senior mess steward serves as his principal assistant.

b. Feeding Plans.

(1) The support platoon leader coordinates with the company executive officer and prepares and announces the battalion feeding plan as early as possible to allow mess personnel maximum time to prepare meals and for unit commanders to make appropriate plans. The feeding plan includes all or part of the following instructions—

(a) Time and place meals are to be issued and methods for cleaning of mess gear.

(b) Vehicles to be employed for delivery.

(c) Time vehicles will leave kitchen location.

(d) Designation of release point.

(e) Time vehicles are to be released to units and the time they are to return to battalion control.

(f) Any restrictions on movement.

(g) Additional items of supply that are to be sent forward.

(2) The unit feeding plan is based on the battalion plans and is coordinated as stated above.

c. Receipt and Preparation of Rations. When rations arrive at the kitchen, the mess steward breaks them down into meals. Mess personnel, using the feeding plan as a guide, then prepare the proper amount of food and place it in hot-food containers for serving.

d. Delivery of Rations.

(1) The tactical situation normally dictates whether food and water are delivered to forward positions during daylight or darkness. Food and water are transported to unit mess locations by the most appropriate means available.

(2) When the tactical situation does not permit forward combat platoons to move to a central unit mess location, they are fed by delivering the food to their position in trucks if practicable, or by carrying parties.

(3) The unit commander selects the mess location. It should be convenient to the troops, accessible to vehicles carrying food, large enough to permit the dispersion of troops being fed, pro-

vide for concealment from hostile observation, and offer protection from flat-trajectory fire.

(4) Food and water are provided to attached elements by the units to which these elements are attached. Elements of units employed in support of a rifle company are usually fed by their parent units; however, difficult terrain or distance may require feeding by the supported unit.

(5) Arrangements must be made for cleaning of individual mess gear in the company area or, preferably, for return of the mess gear to the battalion trains where it is cleaned by mess personnel under the supervision of the battalion mess steward. Disposable mess gear should be used wherever practicable.

e. Delivery of Water.

(1) Water is generally delivered with food. If possible, water purification bags are set up at unit mess locations so that several men can fill their canteens at one time. This practice reduces time involved and prevents waste.

(2) If water is not readily available from engineer water points, expedients must be used to purify water before it is used for cooking and drinking. For details concerning water purification, see FM 21-10.

H-8. Maintenance Platoon and Organizational Maintenance Responsibility

a. General.

(1) Maintenance embodies all action taken to keep materiel serviceable, or to restore it to serviceability. It consists of inspecting, testing, servicing, repairing, evacuating, classifying as to serviceability, reclaiming, and rebuilding equipment. Included is all work performed on unit vehicles and equipment to keep the unit in combat-ready condition to carry out its mission. Thus, maintenance is a highly important, continuous task which requires constant supervision and immediate attention by all concerned.

(2) The maintenance system is divided into four main capabilities, based upon the extent of capabilities, facilities, and skills required for the operation. These capabilities are: organizational maintenance, direct support maintenance, general support maintenance, and depot maintenance. For additional information, see DA Pam 700-2 and DA Pam 750-1.

(3) Organizational maintenance is that maintenance which a using organization has the authority and responsibility to perform on its own equipment. This level of maintenance is largely preventive in nature.

(4) Direct support maintenance concentrates upon the rapid repair and return to service of *end items* by testing, adjustment, maintenance calibration, straightening, tightening, replacement of repair parts and replacement of unserviceable components.

(5) General support maintenance principally involves the repair of equipment *components* evacuated to GS level by DS maintenance units, and the rapid return of repaired items to the supply system.

(6) The repair of materiel beyond the capability and capacity of normal general support maintenance is referred to as depot maintenance.

b. Maintenance Platoon.

(1) *General.* Except for signal and medical items, the battalion maintenance platoon has primary responsibility for organizational maintenance of the battalion's equipment. The battalion communications platoon has organizational maintenance responsibility for signal items. Organizational maintenance for medical equipment is accomplished in all cases by the division medical battalion. In the mechanized infantry battalion, organizational maintenance is performed at company level by its organic maintenance section, with backup support by the battalion maintenance and communications platoons.

(2) *Duties of key personnel.* The *maintenance warrant officer* is the platoon leader of the maintenance platoon of the infantry, airborne infantry and mechanized infantry battalion. The *maintenance sergeant* is the section leader of the maintenance section of the service platoon of the light infantry and airmobile infantry battalion. The *maintenance warrant officer* works directly under the supervision of the battalion motor officer, and the *section sergeant* works directly under the supervision of the service platoon leader. Their responsibilities include coordination with direct support maintenance units and repair teams for the accomplishment of direct support (and backup organizational) maintenance. As platoon leader and/or section leader, he coordinates the platoon's activities with operating plans of the battalion and those of the division maintenance battalion/maintenance company.

(3) *Operator maintenance.* Operator maintenance is performed by driver/operators (and crews) before, during, and after operation/use of the equipment. The unit commander is responsible for insuring the effective and timely performance of operator maintenance, and for providing the proper supervision thereof.

(4) *Organizational maintenance.* When an item of equipment requires organizational maintenance,

nance beyond the scope of operator maintenance, on-site repair by mechanics of the battalion maintenance or communications platoon (or mechanized rifle company maintenance section), will be requested where feasible. The important principle to be followed is that equipment should be repaired as far forward as possible.

c. Direct Support Maintenance. In instances where equipment requires repairs beyond the scope of organizational maintenance, a request will be made to the forward support company of the maintenance battalion. For details on how direct support maintenance is provided, see FM 29-30.

APPENDIX I

GROUND SURVEILLANCE SECTION

I-1. General

a. The mission of the ground surveillance section is to provide ground radar surveillance for the infantry battalions. The section is capable of performing a wide variety of general tactical functions including:

(1) Searching enemy defensive positions, avenues of approach, possible enemy attack positions, assembly areas, or other sectors or areas to report location, size, composition, and nature of enemy activity.

(2) Monitoring point targets such as bridges, defiles, or road junctions and reporting quantity, type of target, and direction of movement through the point.

(3) Surveying final protective fire areas to permit timely firing.

(4) Surveying areas of nuclear and nonnuclear fires to detect enemy activity immediately after firing to determine effect of fires. By surveying the periphery of nuclear effects and comparing this with previous surveillance, it may be possible to ascertain the extent and type of damage (e.g., tree blowdown) and thereby determine whether further neutralization by nuclear or nonnuclear fires is required.

(5) Extending the surveillance capabilities of patrols.

(6) Assisting the visual observation of units during daylight by making initial detection of partially obscured (haze) targets at long ranges.

(7) Assisting in the control of units during a night attack.

(8) Vectoring patrols or other units through barriers.

(9) Communicating with adjacent units or patrols when radio silence is imposed. The use of surveillance radar in this task, as well as those outlined in (7) and (8) above, may be accomplished when positive means of identification and appropriate signals have been established in advance. Since the radar detects motion of an object and presents it as a sound, identification must be either by a prearranged motion or by a characteristic sound. By using a corner reflector, which pro-

duces an easily recognized signal, coded signals may be sent to the radar operator.

(10) Determining range.

(11) Increasing the effectiveness of fire support. When targets have been detected with reasonable certainty by radar, the fire support means may immediately take the targets under fire. At night, in the event that the type of target cannot be definitely established, the radar team can furnish range and azimuth to the target so that illumination may then be accurately employed to disclose the nature of the target. Since radar equipment can detect the density of enemy activity in a given area as well as the rate of enemy advance or withdrawal, it may be used to determine the optimum time for employment of explosives, atomic demolition munitions (ADM), chemical agents, or supporting fires.

b. In both the attack and defense, the ground surveillance section is normally employed in general support of the battalion; however, in certain situations all or part of the section may be attached to, or placed in direct support of, a unit. Radars are normally employed well forward to take full advantage of their range capability. In the conduct of the attack under conditions of good visibility, the ground surveillance section is normally retained in general support, ready to displace forward and support the operation in the objective area as required.

c. Organic radar equipment provides the battalion with an all-weather capability for battlefield surveillance. The employment of the equipment is closely coordinated with the employment of patrols, listening posts, observation posts, night observation devices, and other sensory devices. Ground surveillance radar can provide observation from a given vantage point 24 hours a day and can detect targets and provide significantly more accurate range and azimuth readings than possible by visual estimates and issue compasses. By utilizing all-weather, 24-hour capability inherent in ground surveillance radar equipment, the battalion commander can appreciably increase the effective use of fire support and maneuver means.

d. While radar equipment is an excellent means of obtaining information, it is not capable of replacing other surveillance means. Its primary advantage lies in its ability to complement other surveillance means and to detect movement with greater accuracy than other available surveillance means. Although radar is used primarily for operations at night or under other conditions of limited visibility (haze, fog, smoke, etc.), radar equipment also be used as effectively during daylight hours. The capability of the equipment is such that its employment is not restricted to certain types of terrain, rigid sets of conditions, or to a few functional operations.

e. The surveillance section is responsible for the technical aspects of emplacing available sensors in support of battalion operations.

I-2. Organization

The ground surveillance section is a separate section in the combat support company of the infantry and mechanized infantry battalions and consists of a section headquarters, two medium-range radar teams, and four short-range radar teams. In the airborne infantry battalion, this section is organic to the battalion reconnaissance platoon of headquarters company and the section has only two short range radar teams. The airmobile and light infantry battalions do not have an organic ground surveillance section.

I-3. Duties of Key Personnel

a. *Section Headquarters.* The section sergeant is responsible for the section's training, control, tactical employment, and supply. He recommends methods of employment of his section and receives his orders from the battalion commander through the S2. Within guidance provided, he selects the positions and surveillance areas for the radar teams retained under battalion control. He insures that adequate orientation of the radars retained under battalion control is established to provide the required electronic surveillance data. He insures that radar surveillance cards (para I-8) for each device retained under battalion control are prepared, utilized, and distributed to the battalion S2 and FSCOORD. He coordinates with unit commanders in whose area his radar teams are operating on matters of communication, security, and administrative support. He locates himself where he can best influence the action of his unit, and he performs such other duties as the battalion commander may direct.

b. Radar Team.

(1) The *team leader* is responsible for all tactical and technical operations of his teams. He is responsible for establishing the site, operating the radar equipment, and preparing an appropriate radar surveillance card. He insures that specific areas are kept under surveillance as prescribed in the ground surveillance plan and that timely reports are submitted to the appropriate unit or agency. He supervises the organizational maintenance of team equipment and maintains records of the length of operation of equipment to insure timely resupply for the power source and timely maintenance.

(2) The *senior radar operators*, who may act as team leaders in short-range radar teams, assisted by the radar operators, operate the radar equipment on site. They also operate the communication equipment and perform other duties as required by the team leader.

(3) The *radar operators* assist the senior radar operators in operation and maintenance of radar and communication equipment and in operation and maintenance of the team vehicle, as required.

I-4. Signal Communication

The section and radar teams are provided radio equipment to operate in the battalion intelligence or command nets terminating in the operations center. The section is provided both telephones and wire to establish a wire net between the teams when possible. The section sergeant is also provided a telephone to tie into existing wire systems where possible.

I-5. Staff Supervision

The battalion S2 has primary staff supervision over the tactical employment of the ground surveillance section. He coordinates with the FSCOORD to insure that firing data are prepared on critical areas under surveillance. Based upon recommendations of the section sergeant combat support company commander, or reconnaissance platoon leader, as appropriate, the S2 prepares a tentative ground surveillance plan and recommends to the battalion commander the method of employment of the section. Once the decision has been made, appropriate plans are prepared and orders issued for employment of the ground surveillance section.

I-6. Missions Assigned

a. Surveillance missions are normally assigned by an annex to the operation order or as part of the tactical mission of a unit. When the battalion commander desires that a radar team be attached

or employed in a specific mission or area, he will indicate this in appropriate orders to the unit.

b. The attachment of a team to a unit or the assignment of a tactical mission to a team deline-

ates several areas of responsibility. Listed in the chart below are responsibilities inherent in each mission assignment to the ground surveillance section.

Employment	Report information to—	Area and method of surveillance prescribed by—	Displacement and general location prescribed by—	Responsible for administration and security
Attachment--	Company*---	Company*-----	Company*-----	Company*
Direct	Company*---	Company*-----	Team Chief Coord.	Section
support---	Battalion**--	-----	W/Company*, Reports to battalion	-----
General				
support---	Battalion----	Battalion-----	Battalion-----	Section

*Of unit to which attached or in support.
**EEI items.

I-7. The Ground Surveillance Plan

a. The S2 will incorporate the employment of the ground surveillance section in the ground surveillance plan which he prepares after coordination with the ground surveillance section sergeant, the combat support company commander, reconnaissance platoon leader (airborne battalion), FSCOORD, and S3. In this surveillance plan, the use of all combat surveillance means (patrols, sensory devices, observation posts, listening posts, etc.) are integrated to provide timely information for tactical ground operations. When other units having a radar capability are attached to the battalion, the S2 may recommend the employment of these teams and incorporate their use in the surveillance plan.

b. The S2 normally designates for radar units retained under battalion control the general site locations, areas of surveillance, type of surveillance to be conducted (scan, search, or monitor), how and when information is to be reported, and frequency of coverage desired.

I-8. Radar Surveillance Cards

To insure proper surveillance of the battalion area, subordinate units submit overlays indicating the area of coverage of surveillance means attached to them. Radar surveillance cards (fig I-1) may assist the commanders in preparation of these overlays. Such cards will be prepared by the senior radar operator immediately after the equipment is placed in position, and will be distributed to appropriate fire support agencies. Radar surveillance cards are prepared for primary, alternate, and supplementary positions.

I-9. Information for the Ground Surveillance Section

All information concerning friendly forces, the

enemy, weather, and area of operations should be disseminated to the section prior to and during a tactical operation. If it can be determined what type of target is most likely to appear in a given area, this information can be of great significance in helping the radar operator interpret the signals he receives. Information of the area of operations and the weather will further aid in interpretation of signals. Similarly, the ground surveillance section should be made fully aware of the tactical plan to include movement of friendly units through the surveillance area.

I-10. Selection of Radar Sites

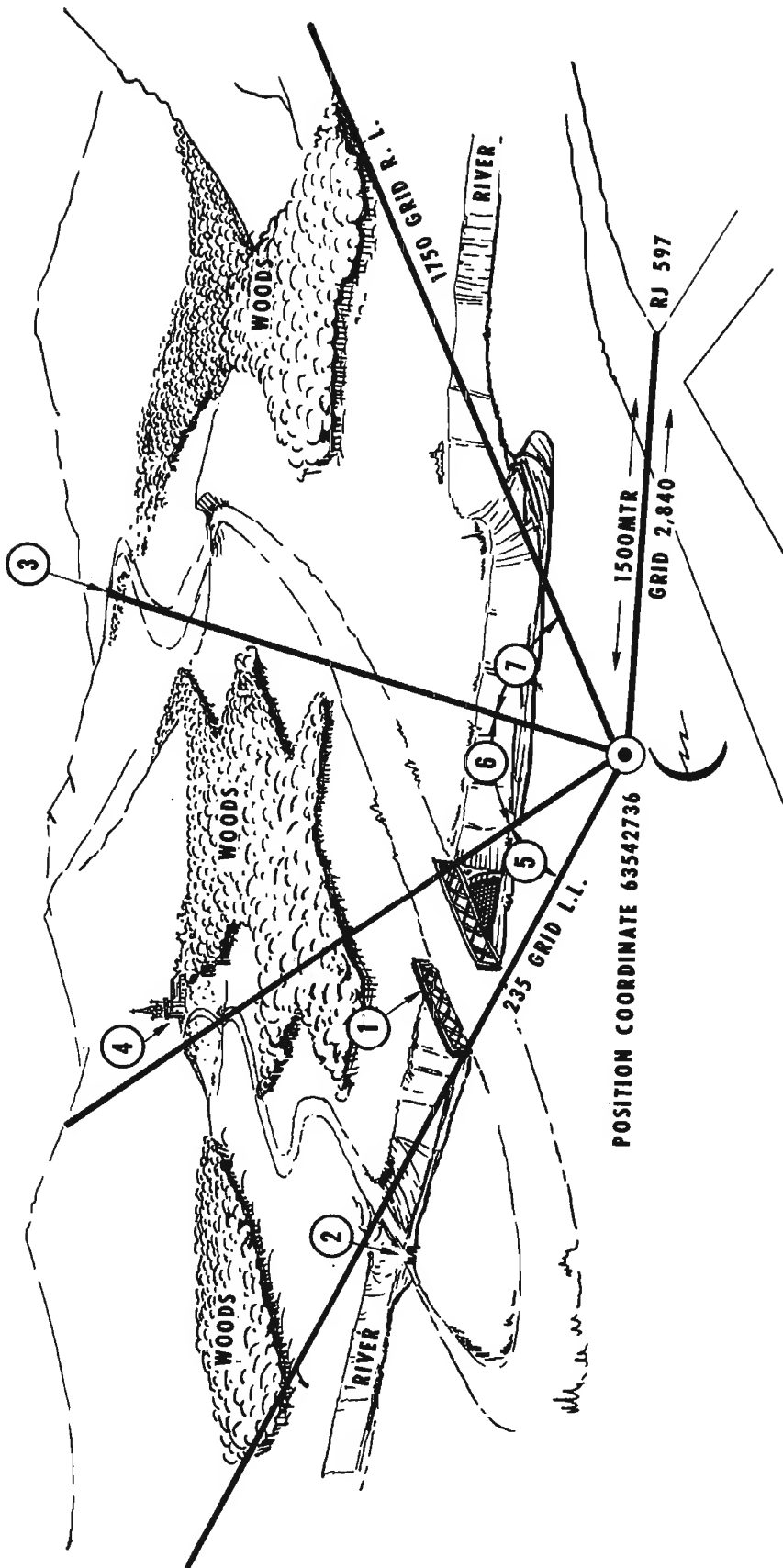
The specific location of the radar equipment site is designated by the section sergeant or, in the case of attachment or direct support, by the senior radar operator. This specific location must be within the general location designated by the appropriate commander. The radar site should have as many of the following characteristics as possible:

a. Permit maximum radar coverage of the assigned area.

b. Provide concealment for the team vehicle and equipment.

c. Facilitate communication with the required units or agencies.

d. Take advantage of security provided by other units while avoiding interference with their operations. If possible, a position should be selected within a well-established defense perimeter; however, since the enemy may have the capability of detecting radar signals and firing in that area, the location of radar equipment in the immediate vicinity of troop dispositions or key installations may be undesirable.



PRIORITY AND TYPE SEARCH	RANGE		ELEVATION +	AZIMUTH (MILS)	AREA (TCT) DESCRIPTION	TIME
	MIN	MAX				
1 MONITOR	400	600	0	825	BRIDGE	AS ANNOUNCED
2 MONITOR	500	700	0	125	RIVER CROSSING	AS ANNOUNCED
3 MONITOR	5300	5600	225	1180	HIGH SPEED ROAD AT PASS	AS ANNOUNCED
4 MONITOR	4800	5300	175	660	CHURCH POSSIBLE OF	AS ANNOUNCED
5 SEARCH	300	3000	200	100	RIVER - WOODS	0 TO +20
6 SEARCH	250	3200	200	0	RIVER - WOODS	+20 TO +40
7 SEARCH	300	5500	250	100	RIVER - WOODS - MIL	+40 TO +60

NOTE: THE TIME FOR MONITORING SPECIFIC POINTS LIKE 1, 2, 3 AND 4.
WILL BE ANNOUNCED BY THE BATTALION S2.

Figure 1-1. Radar surveillance card.

I-11. Positioning of Equipment

a. Radars normally are positioned on dominating terrain. A radar site and an observation post may be located together; however, radar personnel should not be detailed as ground observers except in emergencies. To take advantage of the maximum range of the set, radars are employed as far forward as possible. Radar equipment is intrenched and camouflaged, as in the case of a crew-served weapon, consistent with the requirements for operating the equipment. In addition, remote control operation is employed whenever practicable. Radar equipment is positioned so that its employment is closely tied in with the disposition and employment of other surveillance means and agencies.

b. The radar is located in areas relatively free of close ground clutter such as trees, bushes, or buildings. This clutter tends to distort the radar beam and will result in inaccurate data on range, azimuth, map elevation, etc.

I-12. Orientation of Radar Set

a. After the site is occupied, the radar set is immediately oriented and placed in operation. Then the site is improved and a radar surveillance card is prepared as time permits. The set must be oriented in azimuth and range and its position must be plotted on a map before the operator can pinpoint targets geographically. Orientation may be accomplished by inspection, resection, or intersection much the same way as an individual would orient himself on a map.

b. By proper orientation of the set and coordination with fire support elements, moving targets detected by radar can be taken under fire by fire support elements. Orientation and coordination of surveillance areas will be accomplished during daylight hours when feasible. In some instances, however, it may be more desirable to move radar into previously prepared positions under cover of darkness or during limited visibility.

I-13. Operation of Equipment

a. Each radar team is assigned a specific area of surveillance. In assigning sectors, consideration is given to terrain, enemy capabilities, equipment capabilities, and desired degree of sector overlap. Sector surveillance assignments, type of surveillance to be conducted (scan, search, or monitor), how and when information is to be reported, and frequency of coverage must be included in the instructions to the radar team. The technique of scanning an area by radar is generally comparable to the scanning technique of a ground observer.

b. If enemy activity is detected in an area not

included in the surveillance plan, a new mission may be prescribed directing the efforts of the radars. When such a mission is completed, the operator returns to the prescribed area of surveillance. The radar should be operated at irregular intervals to provide some security from detection and subsequent jamming by the enemy.

I-14. Reporting Information

Ground radar surveillance reporting procedures should be incorporated in the unit SOP. Depending upon the specific requirements, positive and negative information obtained by the radar will be reported by the operator immediately or at prescribed intervals. The operator will transmit the information by using coordinates, distance from a known reference point, or range and azimuth of the activity located, and, will state what he determines the target to be, e.g., dismounted personnel, wheeled or tracked vehicles, etc. The specific reporting details will be prescribed by the commander assigning the surveillance mission to the radar team. The requirement for immediately reporting enemy activity must be stressed at all echelons.

I-15. Alternate and Supplementary Positions

Alternate and supplementary positions are selected and prepared as time permits. When the mission cannot be accomplished from the primary position, the senior radar operator may displace the equipment to an alternate position. Prior to movement to such positions, the section sergeant or supported unit commander is notified. Movement to supplementary positions is accomplished only on order of the section sergeant or supported unit commander.

I-16. Employment in the Offense

a. Radar teams may be profitably employed in offensive operations. In a penetration, they may locate enemy defenses to the extent that the attacking commander may avoid enemy strengths and capitalize on enemy defensive weaknesses. Gaps between enemy units may be detected and, to facilitate the envelopment, assailable flanks may be located. In the conduct of an envelopment, radar teams may be employed to detect enemy forces which have been diverted to meet the threat of the enveloping forces.

b. Once contact has been established, radar teams may be employed:

(1) To provide surveillance forward of the line of contact or on an exposed flank.

(2) To provide surveillance over critical

areas or avenues of approach into the zone of attack of the battalion.

(3) To locate enemy activity to facilitate use of preparatory fires.

(4) To survey enemy positions to determine reinforcement, shifting, or withdrawal of enemy units after the attack has begun.

(5) To determine the result of nuclear fires.

(6) To survey gaps between attacking elements.

c. During darkness or limited visibility, radar teams may be employed as a means of vectoring or guiding friendly attacking elements. They may be used in tracing the movement of forward friendly units in order to establish and/or confirm their specific location at any given time and to coordinate supporting fires with the advance of friendly elements. To facilitate location of friendly elements, a pattern of signals may be established to assist the operator in identification. This may consist of swinging a canteen or helmet in rotary fashion, using a corner reflector, or using a pattern of movement which can readily be identified by the operator of the radar equipment. When other means of communication fail and pyrotechnics are not visible, coded signals may be sent to radar teams to request lifting or shifting of supporting fires.

I-17. Movement to Contact

a. During the movement to contact, radar teams may be attached to security elements to protect an exposed flank or provide additional observation and security. Since radar sets are not vehicle-mounted and are nonoperational during movement, it may become necessary to employ teams in pairs and move them alternately to provide continuous surveillance. When elements of the battalion are moving forward on two widely dispersed axes, radar teams may be employed with forward elements and/or between axes as a means of security and to assist in coordinating and controlling forward movement of battalion elements.

b. Use of radar teams with security elements may facilitate the forward movement of units by locating enemy ambushes or other enemy activity and allowing friendly units to deploy for action. By furnishing a timely warning of enemy activity, radar teams employed with security elements enable the commander to react in adequate time to an enemy threat. Moreover, such a timely warning may allow the battalion commander to choose the time and place to engage the enemy.

I-18. Infiltration

When gaps in enemy defenses have been located, the attacking force may infiltrate through the enemy position. Radar teams may be profitably employed in conjunction with infiltration by surveying infiltration lanes for enemy activity and/or to determine the progress and aid in guidance of infiltrating units. When radio silence is necessary, radar may be used to determine time of passage through phase lines and/or checkpoints.

I-19. Displacement

a. Radars should be kept as far forward as the tactical situation and terrain will permit. Teams displace to support a continuation of the attack or when they can no longer provide effective support for a unit making the attack. Displacement may also be required to support the consolidation on the objective. For this reason, displacement should not be arbitrarily delayed until the teams can no longer provide effective support. The commander must weigh the immediate loss of a surveillance capability against the requirement for immediate surveillance during the consolidation.

b. When intermediate objectives have been assigned, it may be desirable to displace teams to the objective immediately after it is seized. When a closely coordinated attack is to be made from an intermediate objective against a strong enemy position, plans must be made for early displacement to the intermediate objective.

c. Displacement should be accomplished so that teams are in position on the objective immediately following its seizure. Timely displacement will enable forward units to continue destructive fire on withdrawing enemy units or to detect enemy activity indicating a counterattack. Whenever feasible, teams displace by bounds so that some radar surveillance is available at all times.

I-20. Consolidation and Reorganization

Radar teams displace on order to positions previously selected by visual or map reconnaissance. During the consolidation and reorganization, primary emphasis is placed on immediately putting the equipment in operation to obtain information of the enemy. Thereafter, positions are improved and equipment is intrenched and camouflaged as the situation permits. Since the radar teams on the objective will be surveying the area beyond the objective, they must be fully informed of friendly patrols and other elements sent forward to maintain contact with the enemy.

I-21. Pursuit or Exploitation

a. In the pursuit or exploitation, radar teams are employed essentially as they are in the movement to contact. They may be attached to security elements to provide surveillance on an exposed flank or may otherwise provide observation and security for the battalion. Radar teams may be moved by bounds with rapidly advancing elements to provide information on enemy activity. By detecting the presence or lack of enemy activity in an area, the ground surveillance section may appreciably speed up pursuit operations.

b. When pursuing forces are lifted by aircraft to seize key objectives which block enemy routes of withdrawal, radar teams may be attached to such forces.

c. Radar teams attached to an enveloping force may be sited to locate withdrawing enemy elements and thereby facilitate their destruction. Radar may also be used in identification of friendly units to facilitate the linkup with friendly elements.

I-22. River-Crossing Operations

Radars are used in a river crossing as in normal offensive operations. In addition, radars placed on dominating terrain on the near bank may confirm the extent of progress of friendly units on the far bank. When smoke is used by friendly troops engaged in a river crossing, radar may be used to detect enemy troop activity including withdrawal, reinforcement, or shifting of troop units.

I-23. Airmobile Operations

a. The ground surveillance section can be delivered into combat by assault aircraft or transport helicopters. This section is delivered into the objective area as early as practicable to provide maximum time for reconnaissance and preparation of radar sites. Radar teams normally land with the main body in the assault echelon. Generally, teams will be employed with forward units or security elements in the assault where early enemy action is anticipated. Because of the weight of the radar equipment and the normal limitation on vehicular transportation early in an operation, teams should be landed as close to the area of intended employment as possible. When equipment must be hand-carried considerable distances, additional personnel may have to be provided to facilitate early employment of the radar. Helicopters may be profitably used in this phase of the operation in movement of radar teams to dominating terrain to gain an early surveillance capability.

b. When a ground linkup is planned, ground

surveillance radar may be used as a means of signaling and coordinating the linkup with friendly forces. Prearranged codes or signals may be established to facilitate linkup.

I-24. Actions During Battalion Defensive Operations

a. In the defense, the surveillance effort is not only directed forward of the FEBA, but also in depth throughout the battle area. Particular attention is given to gaps between units, exposed flanks, possible helicopter or parachute landing areas or drop zones within the battle area, and other critical areas. To this end, alternate and supplementary positions for radar teams are established to provide complete surveillance coverage of the battalion area. The priority for surveillance coverage of the battalion area is established by the commander based upon recommendations of the S2.

b. Radar teams may support any one or any combination of the three echelons of defense. Teams may be employed with the security echelon (GOP, COP, etc.) to extend its surveillance capability; these teams normally revert to their primary mission when the security echelon is withdrawn.

c. Radar teams may be employed in conjunction with final protective fires by determining when enemy strength is located in these areas. Radars may be used in conjunction with emplaced anti-personnel weapons in determining when such weapons can best be detonated. They may be used to determine the optimum time for detonation of explosives, chemicals, or atomic demolition munitions.

d. Since the enemy may often attack at night, during limited visibility, or with use of heavy smokescreens, radar will be of great use in defensive operations. When an enemy attack is made on a broad front, the amount of enemy activity in a given area may indicate the location of the possible enemy main effort. When radar sightings are used in conjunction with knowledge of enemy tactics, specific enemy maneuvers may be anticipated. Radar sightings may be used to establish the depth of the enemy offensive effort and to indicate whether a feint or demonstration is being conducted in the area.

I-25. Patrols

a. Plans for the employment of radar are closely coordinated with patrol plans to enable radar operators to distinguish between movement of friendly elements and enemy infiltration.

b. When a radar team is used in surveillance of an area in which friendly patrols are operating, the radars may locate enemy activity (e.g., an ambush) which may be detrimental to the friendly patrol. In such a case, a radio message to the patrol or use of pyrotechnics may direct the patrol to avoid the discovered enemy activity. In other circumstances, friendly patrols may be vectored toward enemy activity discovered by radar equipment. Again, use of radio messages or pyrotechnic signals may guide the patrol toward the enemy activity in the area.

c. Radar teams may locate the enemy patrols moving toward friendly defensive positions and thereby allow friendly units to ambush such patrols.

I-26. Action During a Counterattack

During a counterattack, radar teams will continue to report information of enemy activity. By prior arrangement, radar teams located to the rear may also be used to establish the precise location of friendly units on the periphery of an enemy penetration. This identification and location of units may be a critical element in the counterattack, particularly when nuclear fires are to be employed. Radars may assist in furnishing information of the strength and depth of the enemy penetration. Teams employed with forward companies in or adjacent to an enemy penetration may shift their area of surveillance on order to the area of penetration to provide the battalion commander with this information.

I-27. Actions During Retrograde Operations

The radar section can provide significant information of the enemy which, coupled with information obtained from other sources, may enable a commander to decide upon the best method and time of withdrawal. The commander must therefore consider carefully the requirement for maintaining surveillance equipment on position as long as practicable. Radars may aid in the timely withdrawal of a unit by detecting the enemy advance and allowing friendly units to withdraw without becoming decisively engaged. Radar teams may assist the retrograde action by surveying gaps, critical areas, and avenues of approach, and by furnishing target information to facilitate the use of long-range fires. Premature withdrawal of radar teams should be avoided.

I-28. Movement to Subsequent Positions

a. The decision as to when to displace radar equipment involves a consideration of many fac-

tors. In most retrograde operations, secrecy will be a primary consideration. Since radar emissions may be detected by the enemy, any premature withdrawal of radar equipment from the present position may compromise this secrecy. The commander must also consider the amount of time required to take the equipment out of action. Under normal circumstances, this will require approximately 10 minutes or less.

b. Because of the weight of the equipment, motor transportation should be used to facilitate a rapid withdrawal. In difficult terrain or during long marches, additional personnel may be required for carrying the equipment.

c. During the course of movement to the rear, the enemy may interdict road nets along the routes of withdrawal. To counter this, radar teams may be employed with security elements to accomplish surveillance over friendly rear areas and along the routes of withdrawal to discover enemy elements which might interfere with the movement of friendly units to the rear. Radar may also be employed with the rear guard to assist in maintaining contact with the enemy and to determine the extent of aggressiveness of the enemy pursuit.

I-29. Withdrawal Not Under Enemy Pressure

In a withdrawal not under enemy pressure, teams are retained in position as long as practicable to simulate normal activity and to maintain continuous surveillance over the enemy. These radar teams are normally attached to the nearest company and move to the rear with that unit.

I-30. Withdrawal Under Enemy Pressure

In a withdrawal under enemy pressure, radar teams attached to forward units or covering forces remain with those units and continue to provide target information as long as practicable. Radar teams under battalion control are normally attached to forward or covering forces for the withdrawal; however, when the radar information acquisition capability is not significant, it may be more desirable to retain these teams under battalion control and displace them to the rear immediately prior to withdrawal of the forward forces.

I-31. Delaying Action

In a delaying action, forward units are normally employed on a greater frontage with less depth to the position and with increased gaps between units. In such an action, more emphasis is placed

on forward disposition of radar teams to cover these gaps and provide early information of enemy activity. A delaying action envisions continuous fighting to the rear in order to trade space for time. In view of this, frequent displacement of radar teams may be necessary with increased emphasis on reconnaissance of routes of withdrawal and of radar sites to the rear. Because of the decentralized nature of these operations, radar teams are normally attached to units participating in the delaying action.

I-32. Relief in Place

During the relief, normal activities are simulated, and the outgoing force furnishes security and surveillance during the conduct of the relief. Incoming radar teams are provided with radar surveillance cards and are oriented on the enemy and

area of operations. While most other equipment is exchanged on position, radio and radar sets are not in this category. As a consequence, incoming radar teams will orient their equipment and establish communication prior to relief of the outgoing teams. Every effort is made to maintain secrecy and prevent the enemy from learning of the operation.

I-33. Withdrawal by Air

Since communication security is critical in this type of operation, radars may be used in lieu of radio reports to determine when the main body and detachments left in contact withdraw. Radars not employed with the reserve or detachments left in contact may withdraw early to dominant terrain near the loading area where they provide additional security to the loading operation.

APPENDIX J

REDEYE SECTION

J-1. Mission

The primary mission of the battalion Redeye section is to provide battalion and company-size units operating near the forward edge of the battle area with a capability of defense against low-flying hostile aircraft.

J-2. Organization

The battalion Redeye section consists of a section headquarters and four or five Redeye teams (app B) depending on type infantry battalion. The Redeye section operates under the control of the battalion commander and under the staff supervision of the S3.

J-3. Duties of Key Personnel

a. The Redeye section leader is responsible for the section's training, control, tactical employment, and supply. He makes recommendations for the employment of the Redeye teams and selects and directs the preparation of firing positions for teams which are not attached to elements of the battalion. He normally serves as an assistant S3 for air defense. Some of his specific responsibilities are:

(1) Developing and maintaining the Redeye section's tactical and administrative SOP.

(2) Disseminating temporary changes in rules for engagement and exchanging special hostile and friendly flight information through Redeye section communications channels to teams under his control or through command channels for those teams attached to subordinate units.

(3) Planning team employment and selecting positions (primary, alternate, and supplementary) for teams under his control, based upon the nature of the operation and air defense priorities established by the battalion commander.

(4) Insuring that teams under his control operate in accordance with prescribed rules of engagement.

(5) Planning and supervising section training.

b. The section sergeant is second in command and assumes command of the section in the ab-

sence of the section leader or as required during displacement by echelon.

c. The section radio operator operates the radio and is the vehicle driver. He performs organizational maintenance on both the radio and the vehicle.

d. Each Redeye team chief is in charge of the team and also serves as a gunner when required.

e. The Redeye gunner normally fires the weapon and operates and maintains the team vehicle.

J-4. Radio Communication

a. *Section.* The section headquarters has an FM radio capability to operate in the battalion command net and as NCS in the air defense section net. The section leader screens incoming warning information and retransmits pertinent data to the teams through the FM net.

b. *Team.* The Redeye team has the FM radio capability to operate in the Redeye section net or in the company command net if attached or placed in support of a subordinate unit.

J-5. Wire Communication

Each Redeye team has two telephones in order to control team operation when the two team members must be separated. This is frequently required to attain increased target detection and engagement capability or to permit team communication with the defended unit or section headquarters.

J-6. Rules of Engagement

The theater air defense commander establishes the rules of engagement against hostile aircraft; however, in the absence of instructions to the contrary, individual gunners will engage all aircraft attacking their position or the unit they are supporting, or positively identified as hostile. Detailed rules and procedures for engagement of hostile aircraft are established in the unit SOP and are based on theater ADA directives which are disseminated through normal command channels. See FM 23-17 for a more complete discussion of rules for engagement.

J-7. Criteria for Designating Hostile Aircraft

The Redeye section SOP, based on theater rules, will contain criteria by which aircraft may be designated hostile by the Redeye teams. Authority to engage, except as discussed above, depends on the weapons control status at the time the target was acquired. For example, the SOP may classify aircraft as hostile and permit engagement when they meet one (or a combination) of the following criteria:

- a. Attacking friendly troops or installations.
- b. Bearing insignia or having the configuration of an enemy aircraft.
- c. Discharging smoke or spray over friendly elements without prior coordination.
- d. Dropping flares at night over friendly territory without prior coordination.
- e. Discharging parachutists or unloading troops in number in excess of the normal aircraft crew without prior coordination.
- f. Engaging in mine-laying operations without prior coordination.
- g. Dropping electronic countermeasure devices over friendly territory without prior coordination.

J-8. Operations

a. *Method of Employment.* The tactical mission may be accomplished by organizing the air defense section for combat through use of one, or a combination, of the following deployment methods.

(1) *General Support.* The air defense section deploys its teams so as to best defend the battalion as a whole. Emphasis will be placed on maintenance of overlapping fires and on coverage of low-altitude attack routes threatening the battalion priority units/installations identified by the battalion commander. The air defense section leader will maintain command and control of all teams so deployed. This does not preclude team tie-in to nearby units for purposes of coordinating team security and mess. The general support method is most effective during static situations.

(2) *Direct Support.* The air defense section deploys its teams so as to best defend the companies specified to receive direct support. Teams move with the supported units as required for mission accomplishment, but otherwise remain under Redeye section leader command and control. Team tie-in to the supported unit will be as required for coordination of team positioning, security, and mess. This method is the normal method

of employment in the infantry battalions. During this method, team A will normally defend Company A, team B will normally defend Company B, etc.

(3) *Attached.* Redeye teams may be detached from the section and attached to specified companies on order of the battalion commander, based on the air defense section leader's recommendations. The company receiving the team(s) will exercise command, with operational control subject to compliance with this SOP. Redeye teams should be detached from the section only when the general or direct support methods are impractical; e.g., when the battalion dispersion precludes maintenance of direct section-team communications. In this method, team A normally will be attached to Company A, team B to Company B, etc.

b. *Redeye Defense Planning.* Air defense planning is normally accomplished by the Redeye air defense section leader. The following factors should be considered in planning:

(1) Mission and disposition of the defended unit(s), and the commander's guidance.

(2) Elements or installations to be defended, in order of priority.

(3) The air threat, to include normal delivery methods and tactics employed by the enemy.

(4) The ground threat.

(5) Teams/missiles available.

(6) Redeye capabilities and limitations.

(7) Availability of firing positions.

(8) Command and control requirements.

(9) Utilization of hostile-warning information available from ADA sources, to the degree permitted by available communication.

(10) Coverage and location of other air defense means.

c. *Selection of Firing Positions.* Redeye firing positions should be selected according to the basic principle of preventing hostile aerial interference with the ground plan of maneuver (mission) of the defended unit. When teams are operating under the section leader's control (i.e., in GS or DS), the section leader initially selects tentative firing positions by map reconnaissance and, when time permits, by ground reconnaissance. When teams are operating under control of another commander, this commander will normally designate the initial position area. In any case, the Redeye team chief must select the exact location of the position based on command guidance received. When the defended unit disposition and the number of available Redeye teams permits, the

overall Redeye defense should provide some degree of overlapping fires between teams. The following factors should be considered in selection of individual team firing positions:

(1) Observation and fields of fire along the most probable routes of hostile aircraft approach, with maximum retention of an all-round capability.

(2) Accessibility of the firing position.

(3) The lack of ground security may require selection of positions which are less than optimum for exploitation of the Redeye capability.

(4) Defended unit mission, disposition, and guidance.

(5) Cover and concealment will often conflict with the requirement for clear fields of observation and fire.

(6) Safety (See FM 23-17, FM 23-17A and TM 9-1400-425-12).

d. Defense of the Unit in Position. The provisions of *b* and *c*, above, apply. At least one gunner should continuously perform surveillance of the surrounding airspace, alternating with the other gunner as required. In some instances, the gunners may be separated with one serving as observer to warn the other of aircraft approaching from behind trees or other obstacles. In other cases, both gunners may carry Redeye weapons and each then act concurrently as the observer. Both gunners continuously acting as observers will result in gunner fatigue which will degrade overall effectiveness. Provision should be made for augmenting Redeye fires with organic non-air defense weapons, primarily automatic weapons, capable of delivering large volumes of direct fire. See FM 7-11.

e. Defense of the Unit During Movement.

(1) *General.* The provisions of *b* and *c*, above, apply to the extent practical. Maintenance of communication throughout the move may be difficult. Where possible teams are positioned near alternate communication means.

(2) *Mobility.*

(a) The team's organic vehicle and trailer will usually provide adequate mobility to allow defense of moving units.

(b) The Redeye section leader normally accompanies the defended unit headquarters during

the move in order to best position himself to maintain control of the teams during the move.

(3) *Methods.* Redeye team defense of the unit during movement may be accomplished through coordinated occupation of successive positions in such a way as to provide continuous Redeye coverage of the unit (i.e., by leap-frogging), by team dispersal throughout the unit column or formation, or by directly accompanying the priority elements of the column.

(a) *Leap-frogging.* When road and ground security conditions permit, this method provides the most effective cover over the defended unit, provided team movements are properly coordinated. Guidelines are basically as outlined in *b* and *c*, above, with emphasis placed on maintenance of a degree of overlapping fires by teams employed forward and on the flanks.

(b) *Dispersal throughout the column or formation.* When leap-frogging is impractical, the teams may defend the unit by dispersal throughout the column or formation. Such dispersal should be planned to place emphasis on the front and rear of the column or otherwise emplaced to provide the greatest firepower at the earliest possible time against aircraft attacking along the long axis of the formation.

(c) *Accompanying priority elements.* When coordinated team deployment is not feasible or is not desired, teams may be attached to the subordinate unit. Each team then accompanies the designated unit and places emphasis on protecting the priority element of the unit. For further detail pertaining to Redeye, see FM 23-17 and FM 23-17A.

J-9. Emergency Destruction

In the event capture by the enemy becomes imminent, the Redeye team members will destroy, or otherwise render unusable, the missiles on hand by the following actions (in order of priority):

a. Firing.

b. Thermite grenade placed in the missile container near seeker head.

c. If time does not permit the first two actions, throw away the gas coolant thermal batteries and smash the seeker heads.

APPENDIX K

TROOP MOVEMENTS

(NATO STANAG/CENTO STANAG/SEATO SEASTAG 2041; ABCA SOLOG 51)

K-1. Introduction

Troop movements are classified as either administrative or tactical. They may be further classified according to the transportation means employed. Administrative troop movements are those conducted when the probability of ground contact with the enemy is remote or improbable and when there are no security or secrecy requirements beyond those necessitated by the threat of enemy aircraft or long-range weapons. Movement made under conditions of probable contact are tactical, and special security measures are necessary. When a tactical move is made, the overriding consideration is normally the requirements of the tactical situation rather than the efficient use of transportation facilities.

K-2. Methods of Movement

a. To accomplish its mission the battalion must plan and execute movements by foot, motor, air, rail, and water. Regardless of the method employed, detailed planning, precise scheduling, and strict control are necessary to insure that the battalion reaches the destination at the proper time and in condition to perform assigned tasks effectively.

b. To increase its effectiveness in performing troop movements, the battalion should compile experience factors covering prior movements. These experience factors may be in the form of road movement tables and graphs, precalculated road space and time lengths for battalion units, and similar information.

K-3. Standing Operating Procedures

a. Unit SOP are prepared to include techniques and procedures for using each means of transportation which the unit may be expected to employ. The battalion commander establishes the necessary procedures for movement of the battalion as a whole and requires the company commanders to establish similar procedures.

b. Some of the routine items that can be included in the SOP are loading plans; composition

of serials and march units; control measures; rates of march under various conditions; formations; security measures; time intervals and distances; location of the command post during the march; schedule, duration, and tasks during halts; organization of quartering and reconnaissance parties; and reporting instructions. Orders for a particular movement may modify or amplify the SOP to fit the requirements of a particular situation. For this reason, SOP movements are normally general in scope.

K-4. Planning

a. The basic considerations in planning any administrative movement are the mission and number and characteristics of transport means available for the move. Regardless of the type of movement undertaken, its success depends largely upon the thoroughness with which it is planned. Plans for all movements include—

- (1) Organization of troops.
- (2) Packing, marking, and loading of equipment.
- (3) Assembly of troops and assignment of transportation.
- (4) Provision for mess, medical care, rest en route, and repair or replacement of disabled equipment during the move.
- (5) Control and communication measures during the move.
- (6) Groupment of troops and equipment at the destination.
- (7) Security measures including air, ground, and communication security.
- (8) Class III and V supplies when appropriate.
- (9) Coordination with traffic headquarters and highway regulating teams for convoy clearance for motor marches.

b. To assist the planner in taking actions in logical order, the following sequence of march planning may be used:

- (1) Preparation and issuance of the warning order.

- (2) Estimate of the situation.
- (3) Organization and dispatch of reconnaissance and quartering party.
- (4) Preparation of detailed movement plans—
 - (a) Organization of the column.
 - (b) Review of reconnaissance information.
 - (c) March computations.
 - (d) Draft road movement table.
 - (e) Check of plan.
- (5) Preparation and issuance of the march order.

K-5. Training

Practice in planning, loading, and conducting all types of movements is essential to prevent wasting effort and to develop and improve the SOP. Every opportunity is taken to integrate movement training of various types with other training. The supervision of such training provides the battalion staff with useful data and experience for refinement of procedures and serves as a basis for needed emphasis in future training.

K-6. Warning Order

The battalion commander issues a warning order (oral or written) for a movement as early as practicable consistent with his knowledge of the pending operation in order to give his units maximum time for preparation. The warning order alerts the units and should indicate the general purpose of the operation, the destination, the type of movement, and the approximate departure time. Fragmentary orders should follow the warning order to provide as much information as secrecy requirements permit.

K-7. Route Reconnaissance Party

a. As soon as possible after receiving the warning order, a route reconnaissance is conducted to confirm and supplement data obtained from map studies, higher headquarters, and air reconnaissance. The route reconnaissance party for the battalion is usually composed of elements of the reconnaissance platoon and other personnel as required by the situation. Engineer personnel may be made available for this party. The reconnaissance party has three main functions—

- (1) To obtain detailed information of the route including the distances between key terrain features along the route, trafficability, bridge capacities, and similar information.
- (2) To determine the type and extent of engineer work necessary along the route.

(3) To determine the number of guards and guides required.

(4) The location of fords, depth of water, and condition of bottom, banks, and approaches.

(5) Defiles, congested areas, or obstacles that may force congestion of marching elements and creation of a possible nuclear target.

(6) Location of "coil up" or fueling areas if their use is contemplated.

b. Instructions to the route reconnaissance party usually state the nature and extent of information required and the time and place the report is to be submitted.

c. When time does not permit the party to complete its examination of the entire route before the march begins, it is dispatched in advance of the column and passes information back to the main force as it is obtained.

d. When time is limited, the battalion commander may direct aerial reconnaissance of the route, using available aircraft, to precede the ground reconnaissance.

K-8. Quartering Party

a. A quartering party precedes the battalion to a new destination to facilitate its arrival and reception by making necessary administrative arrangements and, if appropriate, providing security at the assembly area. The quartering party usually consists of the S1 or the headquarters commandant, an S4 representative, the communication officer, a representative from each company, and necessary communication, medical, and security personnel.

b. The duties of the quartering officer are to—

- (1) Select the specific assembly area site, if this has not been previously determined, and arrange for its occupancy.
- (2) Allot portions of the battalion area to each subordinate unit.
- (3) Select locations for the command, communication, and administrative installations.
- (4) Make inspections of sanitation preparations.
- (5) Insure that each unit is guided from the release point to its assigned area.
- (6) Provide necessary security in the new assembly area.
- (7) Insure that the area is safe for occupancy.

c. The headquarters commandant is responsible for posting route markers and guides along

the route consistent with findings of the reconnaissance party. Guides may be provided by the rifles companies or other subordinate units.

K-9. Trail Party

The trail party follows the march column. It includes the personnel and vehicles necessary to assist the trail officer in—

- a.* Inspecting the vacated area and correcting and reporting any deficiencies.
- b.* Preventing straggling.
- c.* Placing necessary guards, flags, or lights to warn traffic approaching from the rear.
- d.* Picking up guides and route markers.
- e.* Repair, evacuation, and security of disabled vehicles and their loads.
- f.* Providing medical service support.

K-10. Organization of Battalion Column

a. The battalion column may be organized into serials to facilitate control by the battalion commander. Units that occupy the same general initial location and can be governed by the same set of instructions as to start point, route, destination, rate of march etc., are organized in one serial if the size of the serial does not present an unwieldy control problem.

b. Serials are subdivided into march units. The number of march units is determined by the probable future mission of the battalion and the number of vehicles which can be controlled readily by a single commander during the march.

c. Serials are given numerical or alphabetical designations in the sequence of their expected arrival at the destination. They retain command unity as far as possible. March units within serials may be given numerical or alphabetical sub-designations.

d. The order of march is influenced by the proposed physical arrangement in the new assembly area and/or by the plan for employment of forces upon arrival at the destination.

K-11. Road Movement Order

The battalion road movement order may be either written or oral. A complete order designates the route, critical points, destination, schedule, rate, time intervals, organization of the column, serial commanders, and other details not covered by SOP. Road movement tables and strip maps

usually accompany the movement order as annexes and appendixes. (See FM 101-5 for a sample movement order, and FM 101-10-1 for a sample road movement table, road movement graph, and strip map.)

K-12. Start Point

The start point is a well-defined point on a route at which a movement of vehicles begins to be under the control of the commander of the movement. It is at this point that the column is formed by the successive passing at the appointed time, of each element composing the column. In addition to the principal start point of a column, there may be secondary start points for its different elements.

K-13. Release Point

The release point is an easily distinguishable feature on the route of march near the destination at which specific elements of the column revert to the command of their respective commanders. Guides from the quartering party normally meet the incoming column at the release point to insure an uninterrupted movement into the new area.

K-14. Foot Marches

The battalion's tactical success may depend upon the marching capability of its troops. Troops must be conditioned (FM 21-20) to strenuous marches early in their training and proficiency must be maintained. For organization and conduct of foot marches see FM 21-18.

K-15. Motor and Mechanized Marches

a. When the battalion is not motorized or mechanized, it may conduct a combined foot and motor march or shuttle its foot elements in successive echelons by organic vehicles.

b. Maximum use is made of multiple routes when available. Motor movements are often conducted during darkness to provide secrecy.

c. Maintenance elements follow the battalion to provide repair and towing service for disabled vehicles.

d. For a more complete discussion see appropriate 17-series FM, FM 55-30, or TM 55-310.

K-16. Nonorganic Transportation

a. When transportation is attached to the battalion, the battalion commander is usually provided the following information:

(1) The number and type (or capacity) of the vehicles.

(2) The regulating point(s) and the times the vehicles pass to and from his control.

b. A staff officer and guides from battalion units meet the incoming vehicles at the designated regulating point and dispatch them to the units to be entrucked.

K-17. Supervision of the Column

a. Although the position of the column commander's command post may be designated in the movement order, he himself moves where he can best exercise command of his unit. Army aircraft may be used during marches for control and liaison or radio relay. Units may use panels to facilitate identification from the air.

b. The command posts of serial and march unit commanders usually move at the head of their respective elements, but there is no fixed position for commanders. A control officer (pace setter) at the head of each serial and march unit is responsible for leading the unit over the designated route at the prescribed rate of march.

c. Subordinate commanders and unit staff officers assist the commander in supervising the movement by verifying the route of march; by insuring that adequate intervals are maintained; by insuring that guides are properly posted and instructed; and by determining and eliminating the cause of unscheduled halts.

d. Military police may be attached to the battalion to man traffic control points. They are used to enforce movement priorities, transmit orders, and control traffic.

K-18. Column Gaps

Serials and march units are separated by column gaps prescribed in the road movement order. Properly selected gaps disperse the column and prevent congestion at critical points along the route.

K-19. Halts

A halt of 15 minutes is normally made at the end of the first hour. Thereafter a 10 minute halt is made after each 110 minutes running time. Vehicles clear the roadway during a halt. Guards should be posted at the head and tail of each march unit to control passing traffic. One man from each vehicle, in addition to the driver, remains alert for march signals and to provide aircraft warning. At longer halts for maintenance, rest, and feeding, locations are selected which permit dispersion off the road.

K-20. Communication During the March

Communication within the march column normally is maintained by radio and messengers, supplemented by visual and sound signals. Listening silence may be prescribed during the march. If not, low power and minimum transmissions assist in preserving secrecy. Messages may be delivered to march unit commanders as they pass traffic control points. Communication with adjacent columns and with higher commanders is ordinarily governed by brigade and/or division SOP.

K-21. Rail Movement

Orders directing a movement by rail indicate purpose of the movement, the point of entrainment, data and time of arrival of troops for loading, arrangements for loading of equipment, and the destination. The battalion commander is responsible for the preparation of plans and tables regulating the entrainment and departure of the elements of his command. Details of the move are coordinated with the transportation officer of the area in which the movement originates. In a theater of operations, contacts with civilian or foreign railroads are made through the appropriate transportation officer.

K-22. Preparatory Measures

a. When notified of an impending movement by rail, the battalion commander—

(1) Designates staff members to plan and coordinate the overall movement.

(2) Completes as much planning as possible before receipt of the movement order.

b. Upon receipt of the movement order, the battalion commander—

(1) Provides full written details of the movement to the local transportation officer who arranges for the necessary rail transportation.

(2) Appoints a train commander for each train in the movement.

(3) Dispatches advance or quartering parties.

K-23. Supplemental Information

For general procedures governing rail movement, see FM 100-5; for technical and logistical data and for planning forms and tables, see FM 101-10-1 for duties and responsibilities of personnel and reference data concerning entraining and detraining, see AR 55-355. See appropriate 17-series FM for a more complete discussion of movements of mechanized infantry battalions.

K-24. Airlift

a. Airlift of troops and supplies is accomplished through the use of cargo/utility helicopters of Army aviation units or cargo aircraft of the tactical Air Force supporting the field army.

b. Requests for airlift can be initiated at any level of command. They are satisfied at the lowest echelon capable of filling them.

c. The supported commander or his representative approves or disapproves all requests. The air element providing airlift support acts in an advisory capacity.

K-25. Airlift Requests

a. Requests are either immediate or preplanned.

(1) Preplanned requests for troops and their supplies are submitted through command channels to the division transportation officer (TO). The TO evaluates, consolidates, assigns a priority, and forwards the requests that cannot be accomplished at division level to the corps movements control center (MCC). The corps MCC evaluates, consolidates, assigns a priority, and forwards the requests to the field army movements control center. The field army MCC normally makes the final consolidation, tasks the appropriate Army aviation unit or the Air Force airlift control center to perform the missions, and notifies originators of the

approval through channels. If requests are disapproved at any echelon, the requesters are notified through channels.

(2) Immediate requests for airlift of troops are forwarded to the division TOC for accomplishment from division resources. Requests which cannot be filled at division are relayed by the division in the same channels prescribed for immediate requests for cargo and supplies, as discussed above.

b. FM 1-100, FM 57-1, FM 57-35, and FM 100-27, contain technical information and doctrine for air movement in Air Force and Army aircraft.

K-26. Water Movement

Troops and their combat equipment and supplies may be loaded tactically on the same ship or may be distributed among several ships or convoys, depending on the mission.

K-27. Plans

The battalion commander prepares plans for loading and unloading elements of the battalion according to the policies established by higher headquarters. He establishes early direct coordination with the transportation officer to expedite unit preparation.

APPENDIX L

TROOP-LEADING PROCEDURE

L-1. General

Troop-leading procedure is a logical sequence of actions and thought processes followed by the commander in developing and executing a tactical plan. The purpose of troop-leading procedure is to insure that the commander makes the best use of time, equipment, and personnel in accomplishing the mission.

a. The sequence of troop-leading procedure is not rigid and serves only as a guide. It should be modified to fit the existing situation. Depending on the time available, the mission and other influencing factors, the commander may modify the amount of detail or degree of consideration that each step of troop leading procedure receives.

b. Time is one of the leader's most important considerations when planning an operation. Leaders must budget the time available to allow their subordinates maximum time for planning and still retain for themselves the time necessary to properly prepare a good plan of action. Time is usually the overriding factor in the application of troop-leading procedure and will frequently determine the degree to which the various steps of troop-leading are applied.

L-2. Sequence of Troop-Leading Procedure

The sequence of troop leading procedure is:

- a. Initiate planning.
- b. Preliminary actions.
- c. Continue planning.
- d. Complete plan.
- e. Issue order.
- f. Supervise.

L-3. Use of Staff

The steps of troop-leading procedure followed by commanders at various echelons are basically the same. The significant difference between troop-leading procedures followed by a platoon or company commander and that followed by a higher commander is the latter's use of a staff to assist him in guiding and directing the activities of his command toward the successful accomplishment

of the mission. When a commander has a staff to assist him in planning and exercise of command, the actions he and the staff accomplish concurrently are referred to as the "Sequence of Command and Staff Actions."

L-4. Steps of Troop-Leading Procedure

STEP 1. INITIATE PLANNING.

a. Begin estimate.

(1) Analyze mission.

(2) Collect information from and coordinate with higher, lower, adjacent and supporting headquarters (continuous and concurrent throughout the operation).

(3) Conduct map study to analyze terrain.

b. Plan use of available time.

c. Formulate planning guidance concerning:

(1) Restatement of mission (identification of specified and implied tasks).

(2) Tactical determinations (form of maneuver, type of operation, phasing, etc.).

(3) General courses of action for consideration.

(4) Special aspects of the situation (restrictions, allocation of means, EEI, assumptions, etc.).

STEP 2. PRELIMINARY ACTIONS.

a. Issue warning order.

b. Arrange for and issue instructions concerning:

(1) Reconnaissance.

(2) Movement of unit.

(3) Coordination.

(4) Issuance of order.

c. Meet with staff and exchange information.

d. Announce planning guidance.

STEP 3. CONTINUE PLANNING.

a. Continue estimate by analyzing courses of action.

b. Receive staff recommendations.

c. Complete estimate by announcing decision and concept.

STEP 4. COMPLETE PLAN.

a. Insure completion of:

(1) Tactical plan to include scheme of maneuver, plan of fire support and other supporting plans.

(2) Combat service support plan.

b. Supervise preparation of operation plan/order and administrative plan/order.

c. Coordinate plans/orders with higher, lower, adjacent and supporting headquarters.

d. Approve completed plans/orders.

STEP 5. ISSUE ORDER.

Issue order and insure its understanding.

STEP 6. SUPERVISE.

a. Implement order.

b. Influence conduct of operation through use of fires, reserve, staff and subordinate commanders, and by personal supervision.

c. Keep higher, lower, adjacent, and supporting headquarters informed.

d. Modify plans as required.

e. Accomplish mission.

L-5. Sequence of Command and Staff Actions

The sequence of actions followed by a commander and staff is closely related to and is accomplished concurrently with troop-leading procedures. It provides an effective technique for arriving at and executing decisions. Upon receipt of a mission, the commander analyzes it to determine essential tasks and collects information available from his own staff and higher, lower, and adjacent headquarters. The commander then prepares and issues his planning guidance to his staff. On the basis of the commander's planning guidance the staff coordinates and prepares staff estimates. The commander accomplishes his own estimate and upon receiving recommendations from his staff, arrives at a decision and provides the staff with the decision and concept. The staff then prepares and submits plans to the commander for approval. Upon approval, the order is published by the staff and the commander and staff supervise the execu-

tion of orders to insure that the mission is accomplished.

L-6. Command and Staff Estimates

Throughout the troop-leading procedure the commander must stay abreast of the tactical situation and use the latest information as a basis for all actions. The commander utilizes the information, conclusions, and recommendations provided by the staff in completing his estimate. Command and staff estimates are continuous in nature. When a new mission is received or deduced, the commander and staff initiate a new estimate process and focus their attention on the accomplishment of the new mission.

a. *Commander's estimate.* The commander's estimate is initiated with the receipt of a mission or an assumed mission, and is terminated with the issuance of the commander's decision for the accomplishment of that mission. Normally, a commander reserves a final decision until he has received the conclusions and recommendation of the staff, though in fast moving situations this is frequently impossible.

b. *Staff estimates.* Staff estimates other than the operations estimate are designed to identify problem areas which have bearing on the mission. Their purpose is to determine which course of action can best be supported within a staff functional area or to consider the impact of tactical operations on a functional area. The operations estimate and the commander's estimate provide a systematic analysis and evaluation of factors to arrive at the best way to accomplish the mission. The operations estimate and the commander's estimate are essentially the same.

L-7. Summary

The troop-leading procedure provides a guide for the commander to insure a logical development and execution of planned operations. The steps of troop leading may be combined, compressed or even eliminated. The time devoted to each step will vary with each situation, but each step should be considered in order to insure a complete understanding of the operation. The proper application of troop leading will assist the commander in effectively utilizing available time.

APPENDIX M

SPECIAL ORGANIZATION OF BATTALIONS

M-1. General

a. While the standard (TOE) organization of the infantry-type battalion is based on three organic rifle companies, combat situations may require employment of battalions with four or more rifle companies.

b. Doctrine contained in this manual is appropriate, with minor modification, to employment of an infantry battalion comprising more than three rifle companies. Basic principles of combat operations in offense, defense, and retrograde are not changed by the addition of one or more rifle companies to the basic organization of a battalion. Principles of war, fundamentals of infantry combat, and items of doctrinal guidance have evolved without regard to static unit organizations. The degree of application remains the concern and responsibility of appropriate commanders.

M-2. Considerations

a. In all combat operations, regardless of the specific intensity of warfare, infantry battalions organized with four rifle companies have a greater inherent flexibility than battalions organized with

fewer rifle companies. Battalions so organized enjoy an increased ratio in combat to combat support/service support with negligible effect on the span of control, and such organization enhances cross-attachment with armor battalions.

b. The fourth rifle company facilitates the conduct of simultaneous offensive operations on single or multiple axes or in more than one area of operations (one to four companies forward or committed).

c. In the defense or in retrograde, the battalion can be employed over wider frontages and in greater depth (two to four companies in forward defense area).

d. In all types of operations, the four-company organization permits the retention of strong reserves/reaction forces and provides adequate forces for security roles (to include defending key installations such as command posts, communication centers, and nuclear delivery sites), while retaining a viable battalion organization for the conduct of combat operations. Battalions thus configured also have an increased capability to conduct sustained/continuous operations.

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By Order of the Secretary of the Army:

Official:

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